



ΕΘΝΙΚΗ
ΣΧΟΛΗ
ΔΗΜΟΣΙΑΣ
ΥΓΕΙΑΣ
ΥΓΕΙΟΝΟΜΙΚΗ ΣΧΟΛΗ
ΑΘΗΝΩΝ 1929-1994



Είναι Εφικτή

**η Μείωση της Δαπάνης και η Αύξηση της
Αποτελεσματικότητας και της Ποιότητας των
Υπηρεσιών Υγείας?**

Νίκος Μανιαδάκης

Αθήνα, Νοέμβριος 2010

Στόχοι συστημάτων υγείας

Εξασφάλιση ισότιμης & άμεσης πρόσβασης σε ποιοτικές υπηρεσίες

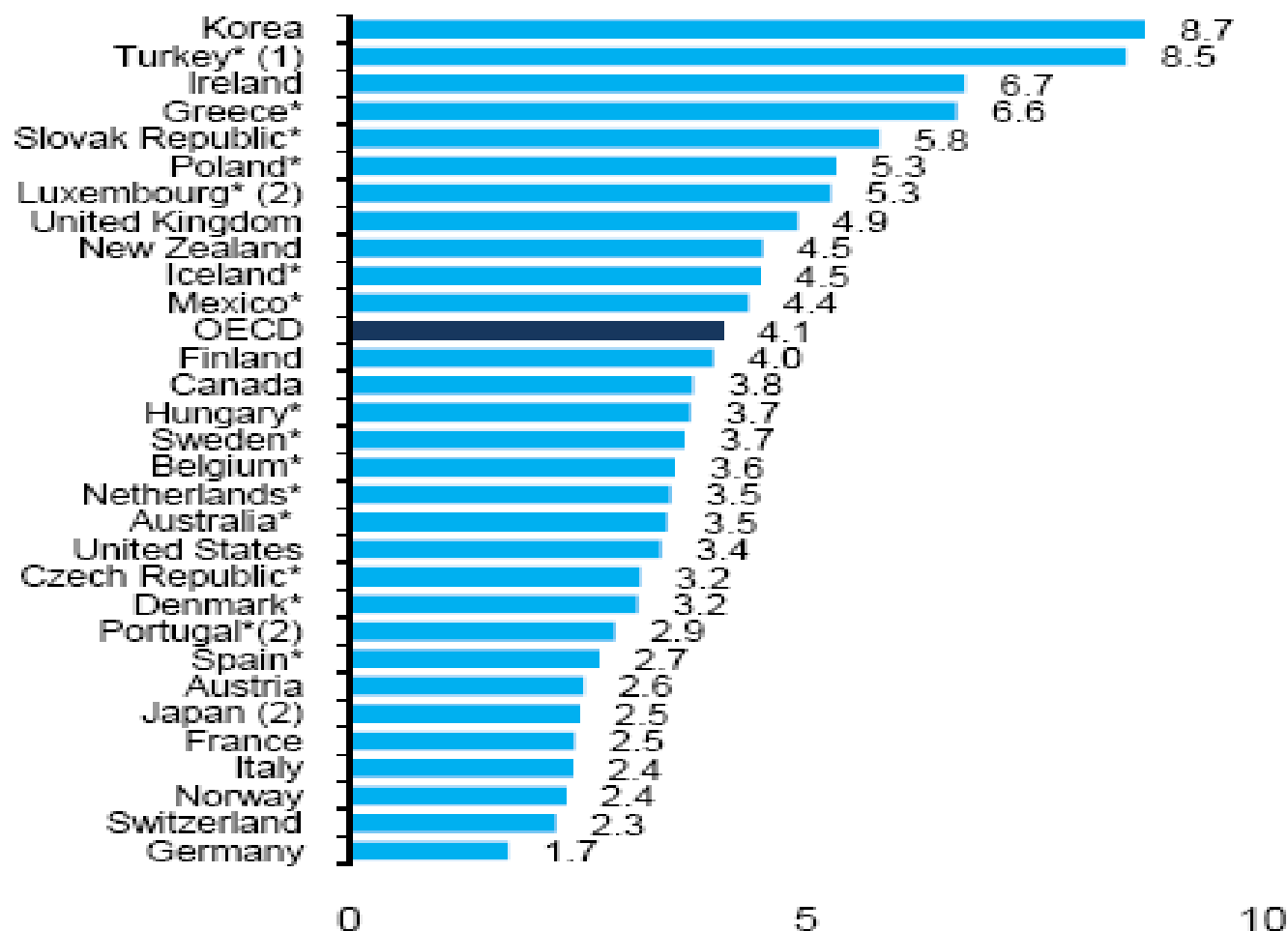


Βελτίωση στα υγειονομικά αποτελέσματα και την ποιότητα ζωής των πολιτών



Κατανομή των πόρων ορθολογικά, δίκαια και σε χρήσεις ώστε να βελτιστοποιείται η αποδοτικότητα και το όφελος από την ανάλωση τους

Chart 7.1.2. Annual average growth rate in real health expenditure per capita, 1997-2007



Source: OECD, 2010

Annual average growth (%)

Chart 7.2.1 Total health expenditure as a share of GDP, 2007

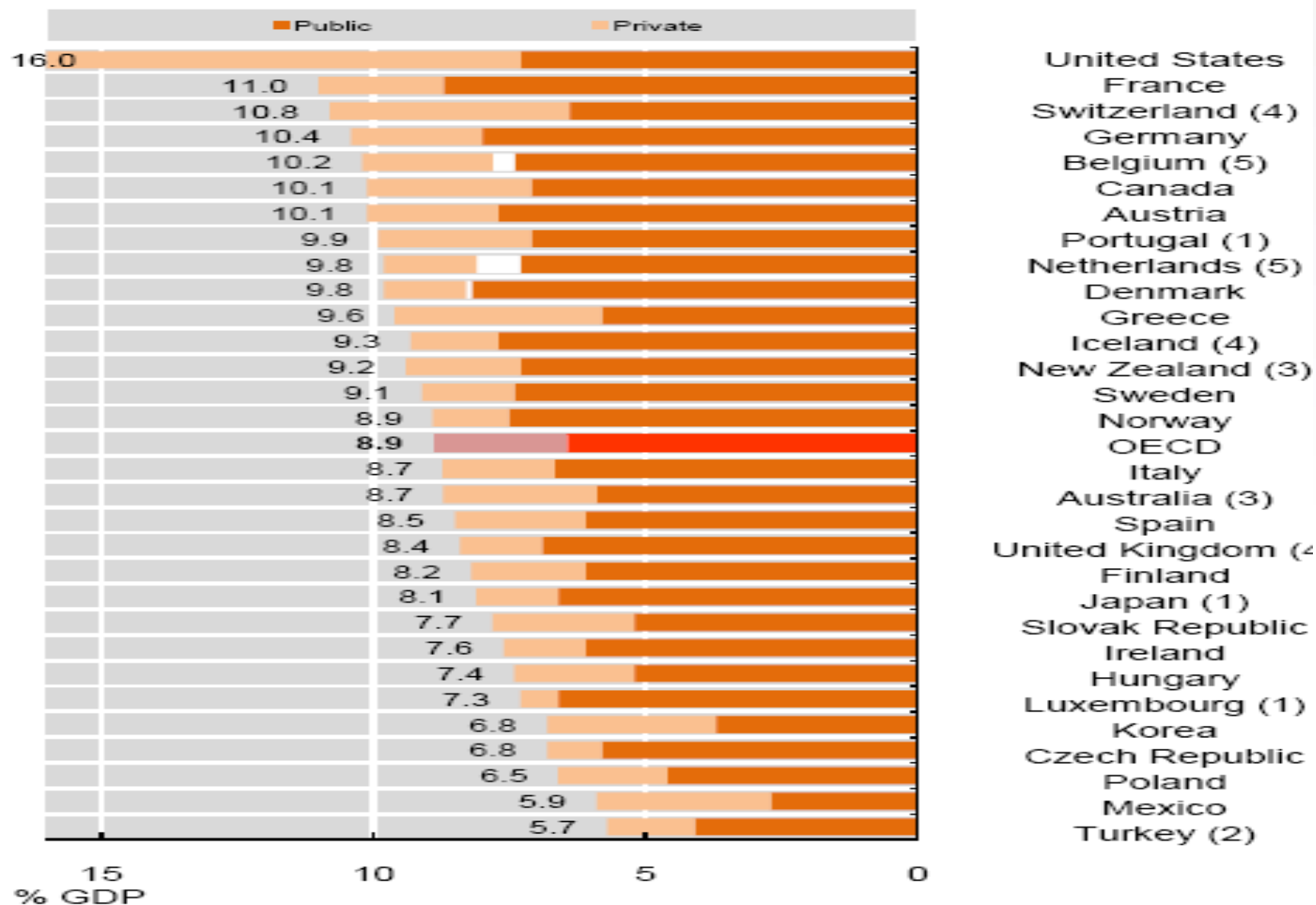
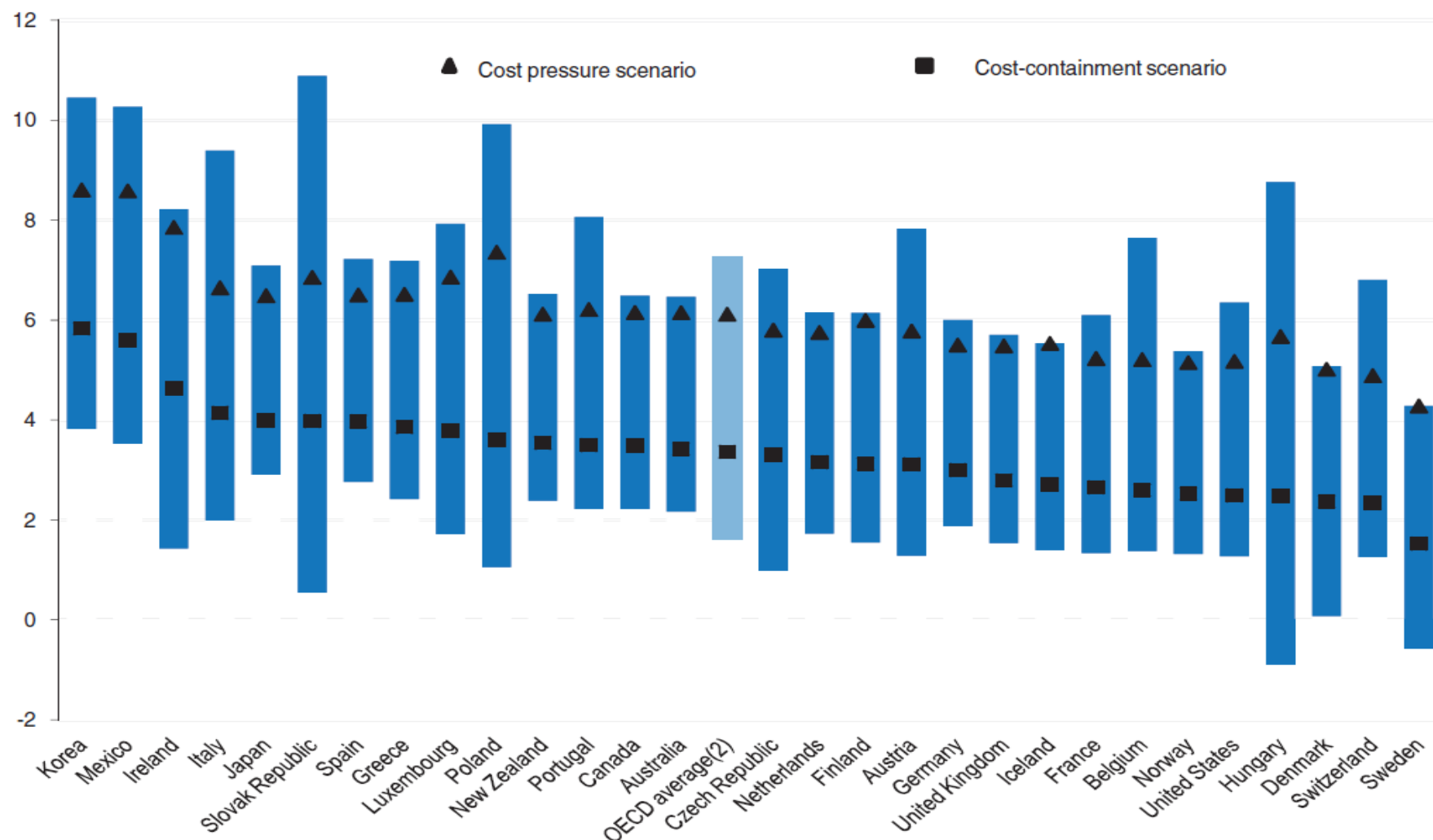


Figure 1.10. Increase in public health and long-term care spending by country

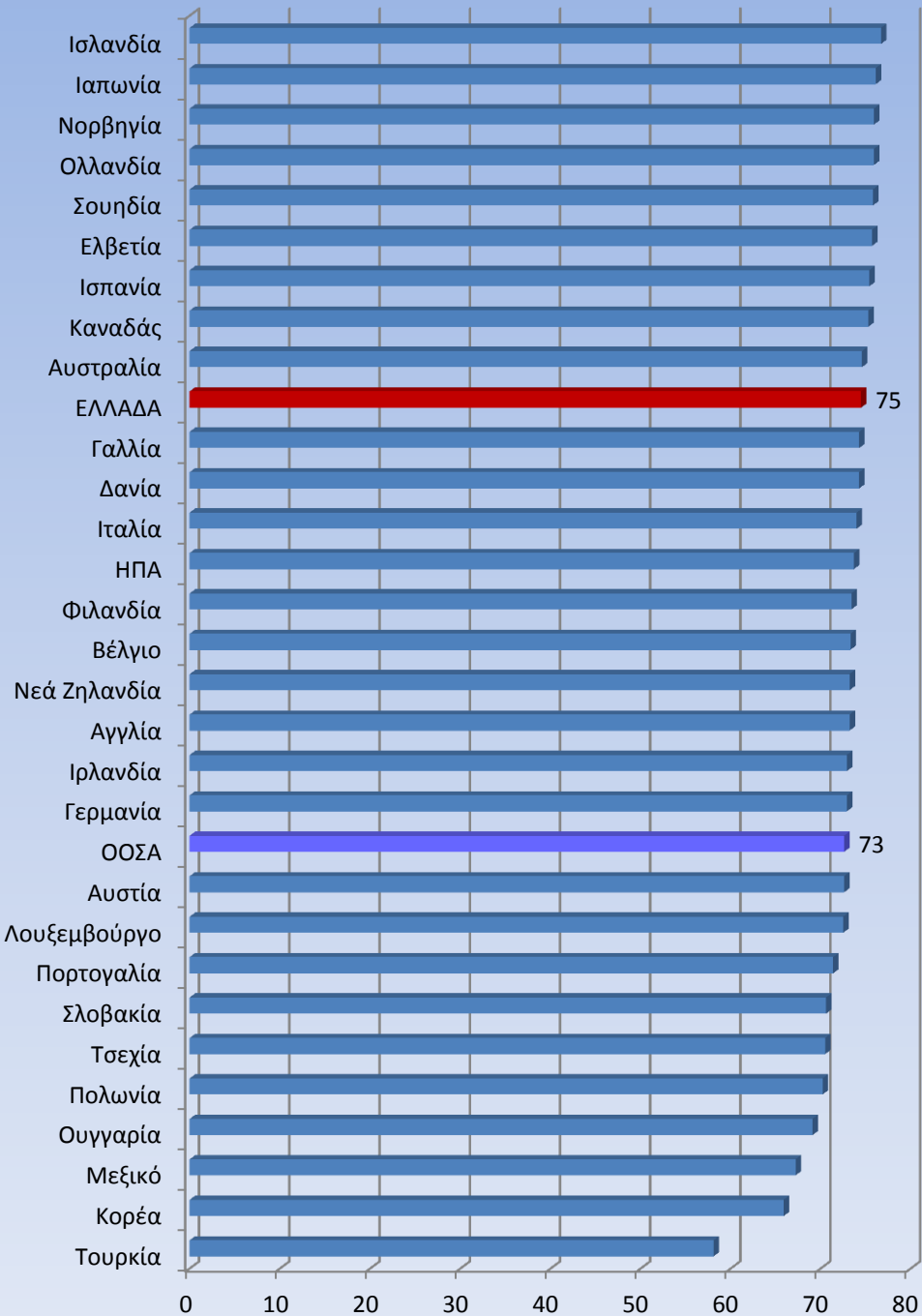
2005-50¹, in percentage points of GDP



1. The vertical bars correspond to the range of the alternative scenarios, including sensitivity analysis. Countries are ranked by the increase of expenditure between 2005 and 2050 in the cost-containment scenario. Turkey was not included because data limitations made it impossible to calculate one of the scenarios.
2. OECD average excluding Turkey.

Source: Oliveira Martins and de la Maisonnette (2006).

1980



2006

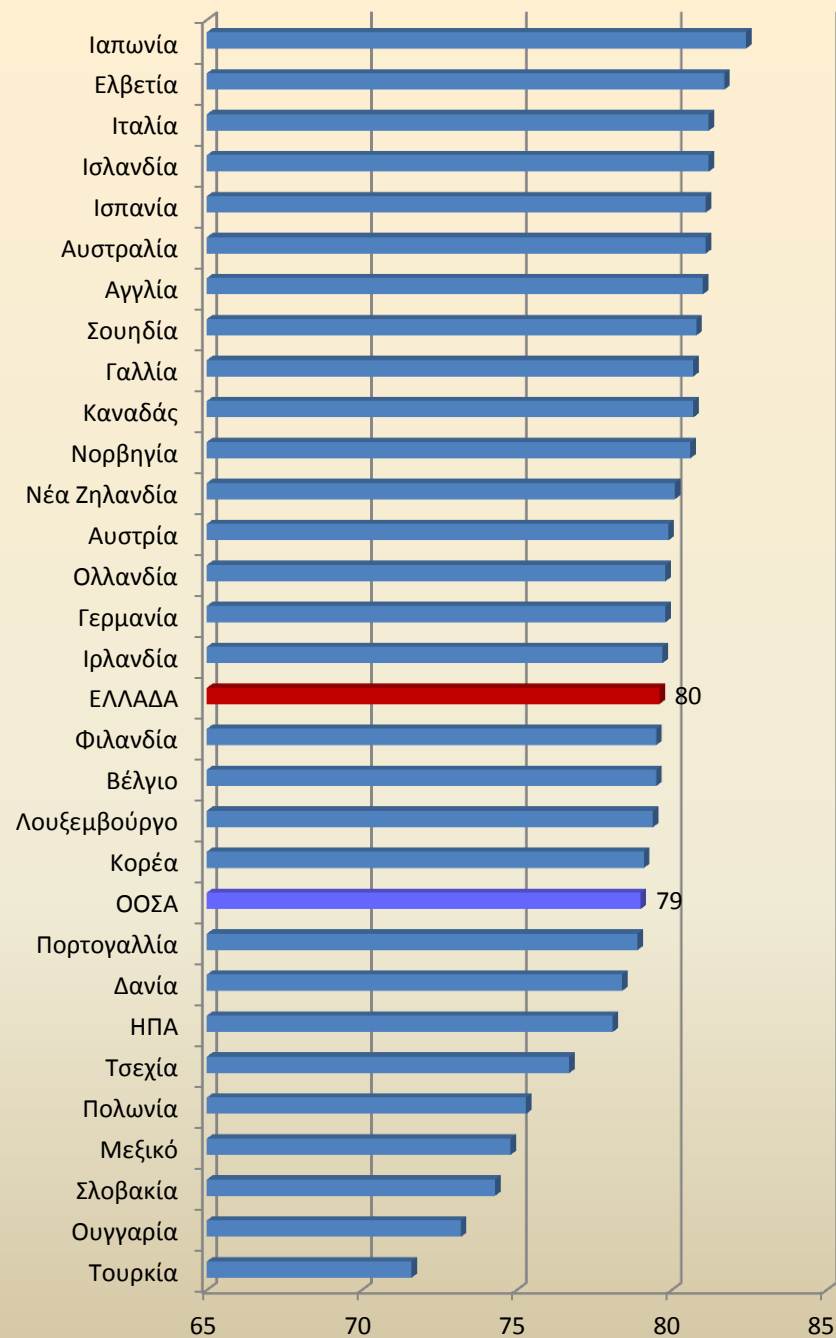


Table 1.1. Measures of health status and country rankings (continued)

2007 or latest year available¹

Panel B. Rankings

	Life expectancy at birth			Life expectancy at 65		Potential years of life lost (PYLL) adjusted ²			Infant mortality	Health-adjusted life expectancy (HALE) at birth			Amenable mortality	In-hospital case-fatality rates within 30 days after admissions		
	Total	Females	Males	Females	Males	Total	Females	Males		Total	Females	Males		AMI	Ischemic stroke	Hemorrhagic stroke
	Years			Years		per 100 000 persons aged 0-69			per 1 000 births	Years			per 100 000 persons	Age-sex standardised rates		
Australia	3	6	4	6	3	10	15	8	21	3	6	5	7	..	..	..
Austria	13	10	15	10	12	9	9	11	11	16	13	18	8	8	7	2
Belgium	15	15	17	9	17	..	..	..	17	16	13	18	..	..	..	..
Canada	9	8	7	7	5	16	19	12	24	8	6	10	12	7	19	11
Czech Republic	25	25	25	26	26	22	18	22	6	24	24	23	23	13	14	13
Denmark	23	24	20	24	23	20	21	19	17	16	21	18	19	3	3	7
Finland	17	7	22	8	19	19	10	21	5	16	6	18	13	10	4	1
France	6	2	12	2	7	18	13	20	14	8	2	10	1	..	..	..
Germany	14	13	13	12	12	15	14	14	15	8	6	10	15	..	8	6
Greece	17	21	18	23	12	12	5	16	10	16	13	10	14	..	..	..
Hungary	30	29	30	28	29	27	27	28	25	29	28	30	27	..	..	..
Iceland	5	10	2	15	4	1	2	1	2	3	6	1	2	1	1	10
Ireland	16	20	13	21	18	11	17	9	6	8	13	10	16	11	17	9
Italy	3	5	6	5	8	4	3	6	11	3	2	1	3	6	6	8
Japan	1	1	3	1	1	2	1	2	4	1	1	1	4	..	..	..
Korea	20	13	21	16	25	12	6	15	19	8	6	10	20	19	2	3
Luxembourg	20	17	19	18	24	8	12	10	1	22	13	23	11	17	12	19
Mexico	27	28	26	27	21	28	28	27	29	26	28	26	25	..	..	..
Netherlands	11	16	10	16	19	6	16	4	19	8	13	5	6	16	13	15
New Zealand	11	17	9	12	6	17	20	13	22	8	13	5	17	5	15	12
Norway	10	10	8	10	11	6	11	7	6	8	13	5	9	4	5	5
Poland	26	26	28	25	27	25	24	26	26	26	26	27	24	9	..	..
Portugal	22	17	23	20	21	23	23	24	9	22	21	22	22	..	..	..
Slovak Republic	28	27	29	29	29	26	25	25	27	26	26	27	26	18	18	18
Spain	6	4	11	4	9	14	7	17	11	3	2	10	10	14	16	14
Sweden	6	8	5	12	9	3	4	3	3	3	6	5	5	2	9	4
Switzerland	2	2	1	3	1	5	8	5	15	2	2	1	..	..	..	..
Turkey	29	30	27	30	28	..	..	..	30	29	30	27	..	..	..	..
United Kingdom	17	22	15	21	12	21	22	18	22	16	21	10	18	15	20	17
United States	24	23	24	18	12	24	26	23	28	24	24	23	21	12	10	16

1. Life expectancy: 2006 for Canada, Italy, the United Kingdom and the United States. Potential years of life lost adjusted: 2003 for Portugal; 2004 for Austria and Canada; 2005 for Hungary, Luxembourg, New Zealand, the Slovak Republic, Spain and the United States; 2006 for Denmark, France, Germany, Italy, Korea, Mexico, Norway, Poland, Sweden and Switzerland. HALE: 2007 for all countries. Amenable mortality: 2003 for Portugal; 2004 for Australia and Canada; 2005 for Hungary, Luxembourg, New Zealand, the Slovak Republic, Spain and the United States; 2006 for Denmark, France, Germany, Italy, Korea, Mexico, Norway, Poland and Sweden. In-hospital case-fatality rates: 2006 for Austria, Italy, Luxembourg and the United States; 2005 for the Netherlands.
2. Potential years of life lost (PYLL) are calculated excluding deaths from land transport accidents, accidental falls, suicides and assaults. PYLL data are missing for Belgium and Turkey.

Source: OECD Health Data 2009; WHO, *World Health Statistics 2010*.

Country Results

 Austria	92%
 Belgium	87%
 Germany	87%
 Czech Republic	86%
 Spain	84%
 France	80%
 The Netherlands	80%
 United Kingdom	80%
 Luxembourg	78%
 Slovakia	78%
 European Union (27)	76%
 Malta	76%
 Denmark	74%
 Cyprus	74%
 Greece	70%

 Finland	70%
 Italy	69%
 Poland	69%
 Sweden	68%
 Portugal	66%
 Ireland	65%
 Lithuania	65%
 Latvia	64%
 Slovenia	64%
 Romania	63%
 Bulgaria	57%
 Estonia	55%
 Hungary	54%

Other Countries

 Turkey	75%
 Croatia	58%

Question:

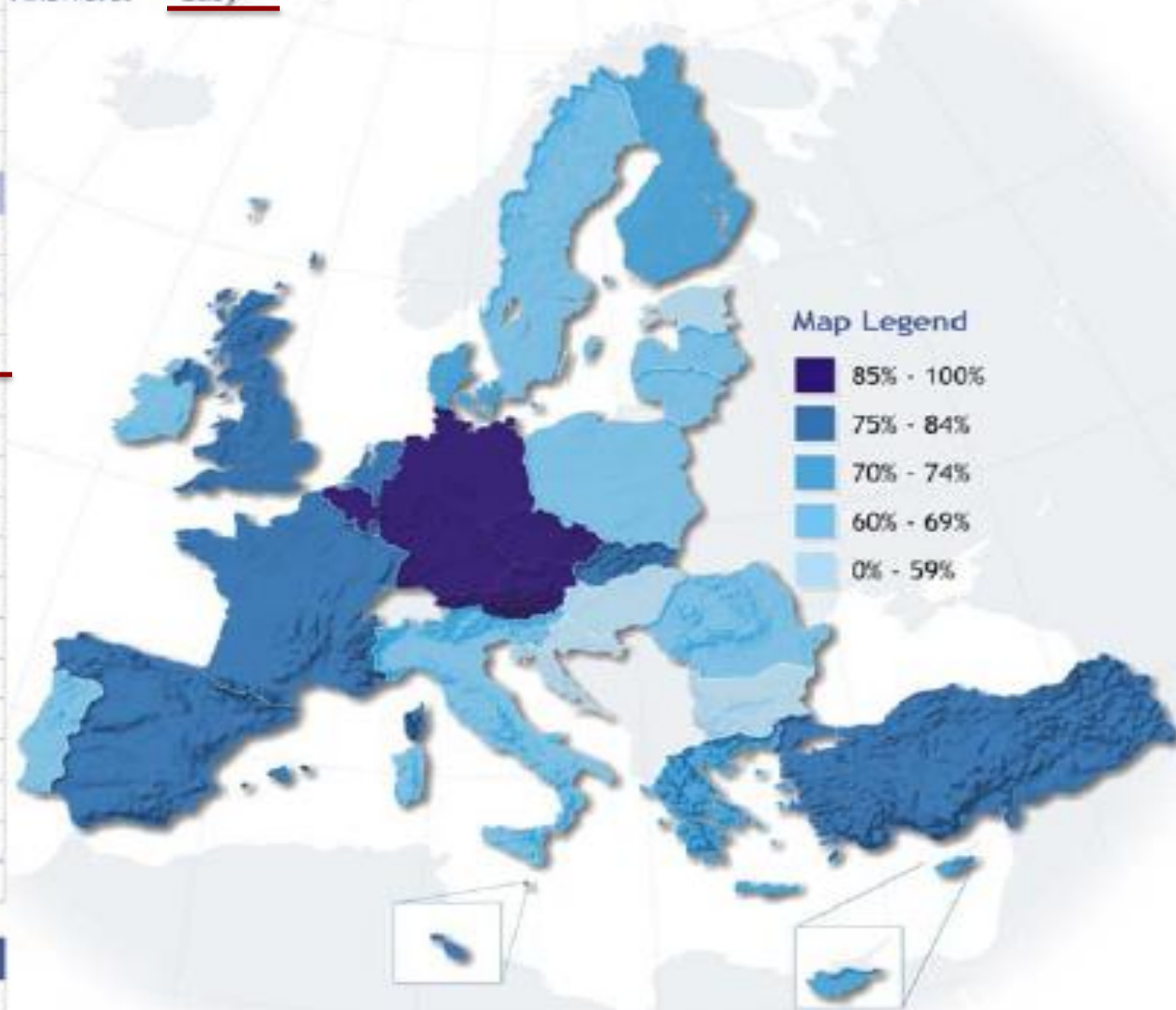
QA4.1. Thinking again about your own personal experiences (yours or those of people you are close to), please tell me how easy or difficult it is to reach and to gain access to the following healthcare services in (OUR COUNTRY). I'm only talking about availability and access, not about affordability or the selection and range of health care.

Option:

Hospitals

Answers:

Easy

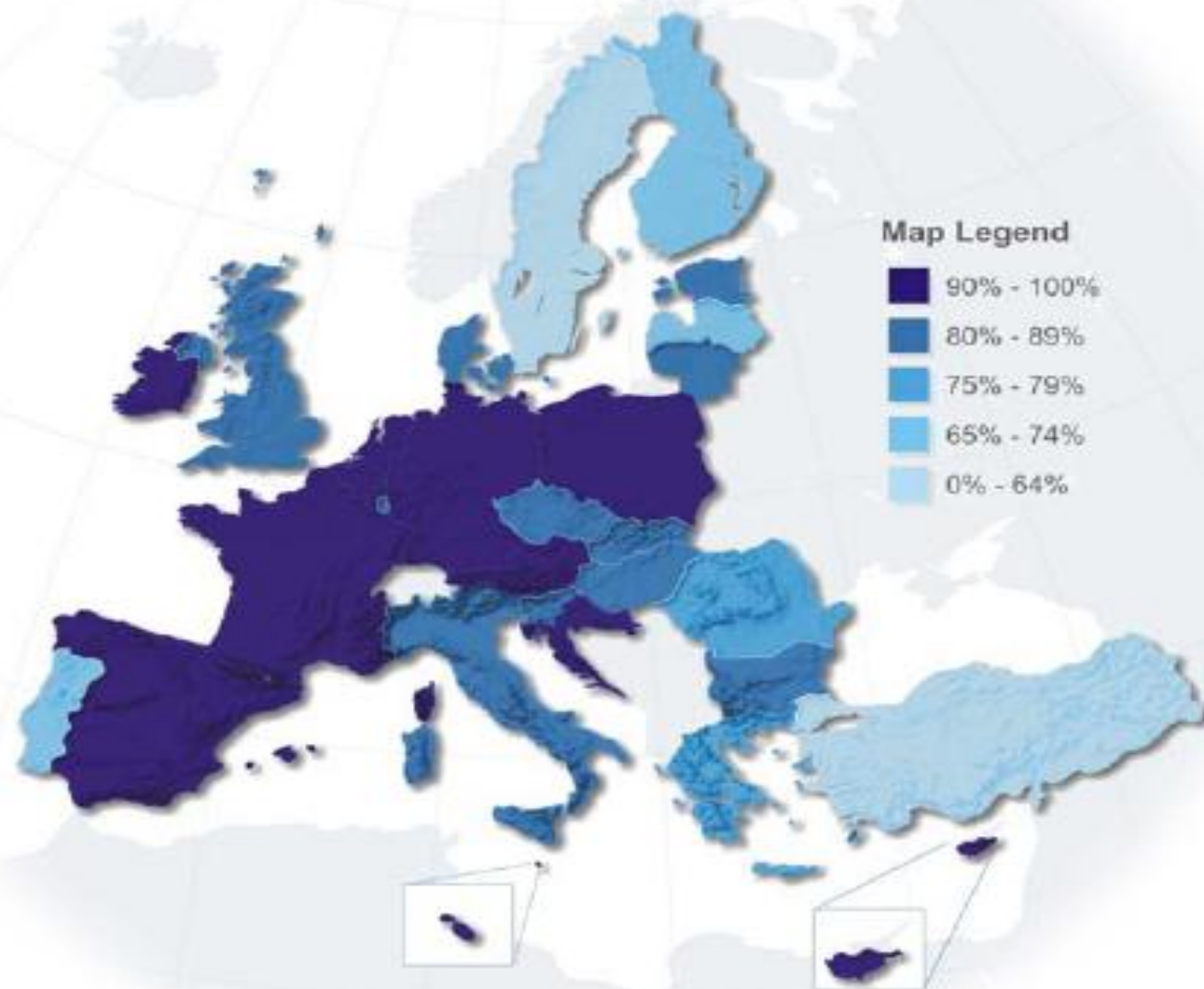


 BE	97%
 MT	96%
 CY	96%
 DE	94%
 ES	94%
 AT	94%
 FR	93%
 IE	92%
 NL	92%
 PL	90%
 LU	89%
 CZ	89%
 EE	88%
 EU27	88%
 HU	86%
 UK	86%
 SI	86%
 IT	83%
 SK	83%
 DK	82%
 BG	82%
 LT	80%
 EL	78%
 RO	77%
 FI	74%
 LV	73%
 PT	67%
 SE	63%
 HR	90%
 TR	60%

Question: QA4.4. Thinking again about your own personal experiences (yours or those of people you are close to), please tell me how easy or difficult it is to reach and to gain access to the following healthcare services in (OUR COUNTRY). I'm only talking about availability and access, not about affordability or the selection and range of health care.

Option: Family doctors or GPs

Answers: Easy



Country Results

	Belgium	93%
	Austria	92%
	Sweden	90%
	Finland	88%
	The Netherlands	87%
	Denmark	85%
	Malta	84%
	France	83%
	Spain	82%
	Luxembourg	82%
	Czech Republic	80%
	Germany	79%
	United Kingdom	77%
	Slovenia	76%
	European Union (27)	71%
	Cyprus	69%
	Estonia	67%
	Ireland	64%
	Italy	63%
	Slovakia	62%
	Portugal	58%
	Lithuania	57%
	Latvia	55%
	Greece	48%
	Hungary	43%
	Bulgaria	43%
	Poland	42%
	Romania	42%

Other Countries

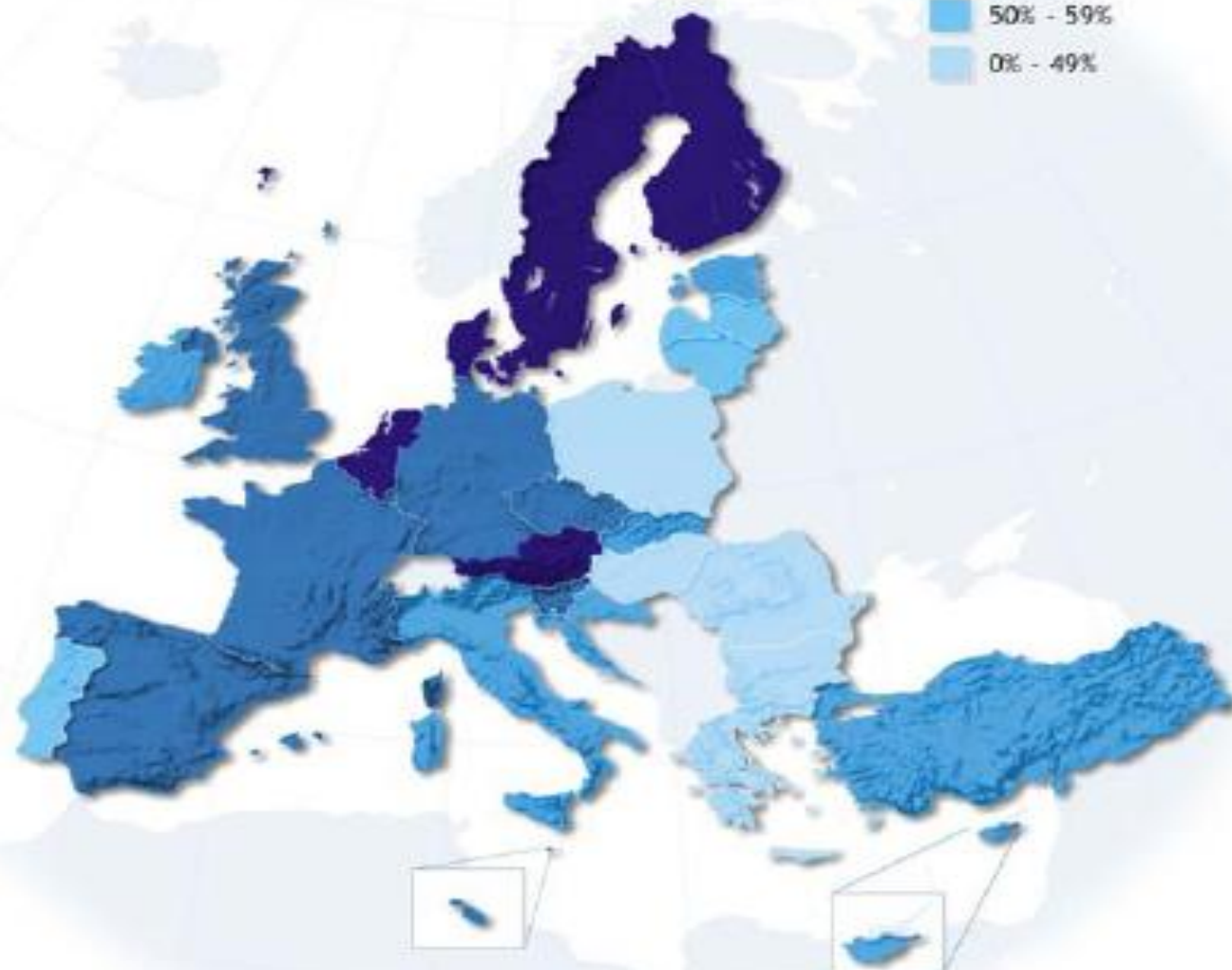
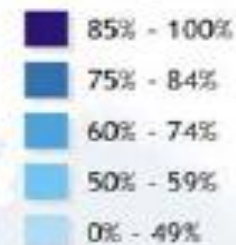
	Turkey	68%
	Croatia	65%

Question: QA3.1. Thinking now about your own experiences of health care services in (OUR COUNTRY) and those of people close to you, please tell me if you think that the quality of each of the following is very good, fairly good, fairly bad or very bad.

Option: Hospitals

Answers: Good

Map Legend



Country Results

 Malta	96%
 Belgium	95%
 France	93%
 Austria	93%
 Cyprus	92%
 Denmark	91%
 Ireland	90%
 Luxembourg	90%
 Spain	89%
 The Netherlands	89%
 Germany	88%
 United Kingdom	88%
 European Union (27)	84%
 Slovenia	84%
 Hungary	83%
 Czech Republic	82%
 Finland	81%
 Slovakia	81%
 Estonia	78%
 Italy	77%
 Lithuania	77%
 Greece	73%
 Poland	73%
 Latvia	72%
 Romania	71%
 Bulgaria	69%
 Sweden	68%
 Portugal	62%

Other Countries

 Croatia	84%
 Turkey	53%

Question: QA3.4. Thinking now about your own experiences of health care services in (OUR COUNTRY) and those of people close to you, please tell me if you think that the quality of each of the following is very good, fairly good, fairly bad or very bad.

Option: Family doctors or GPs

Answers: Good

Map Legend

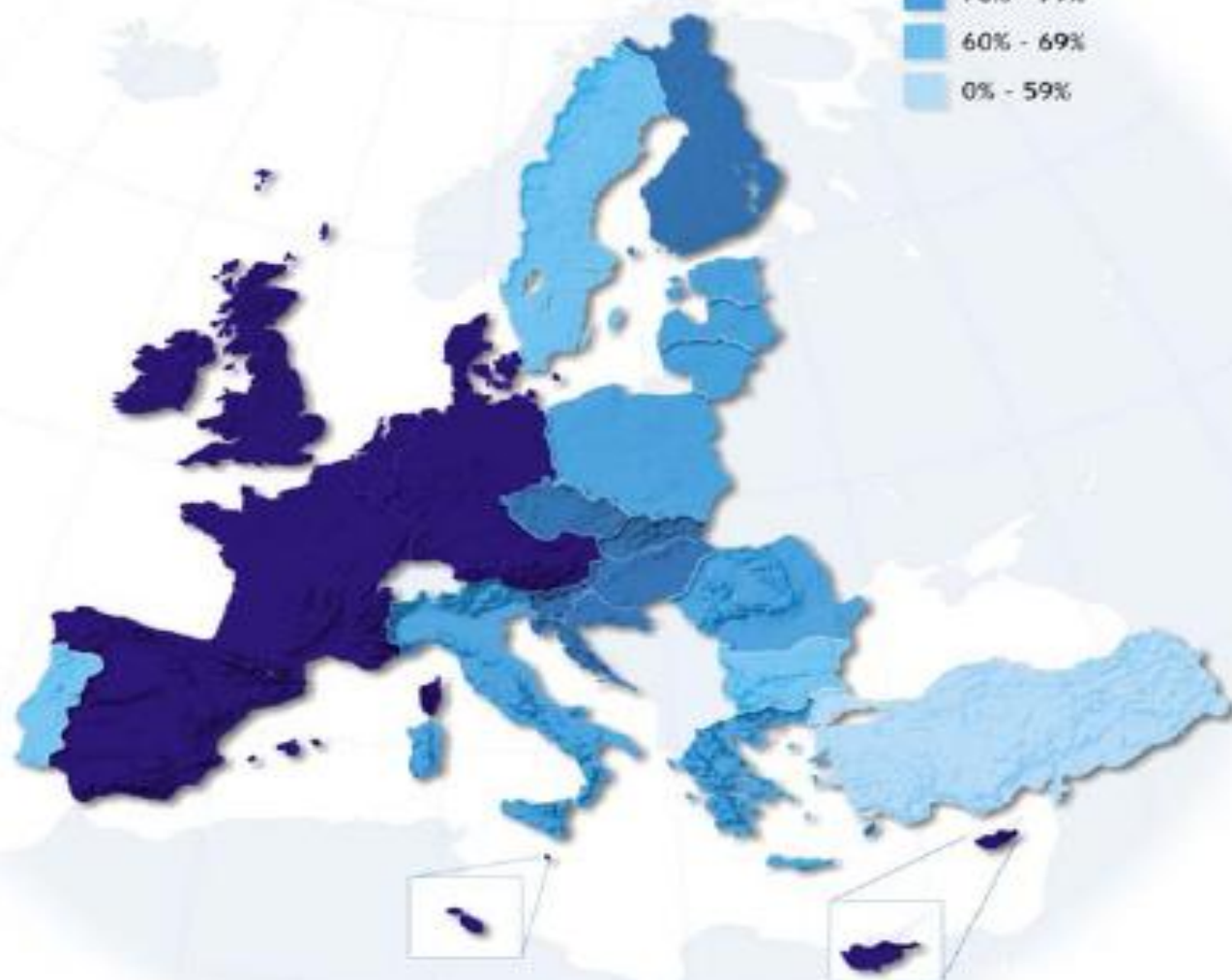
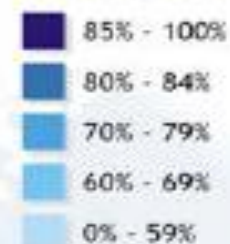
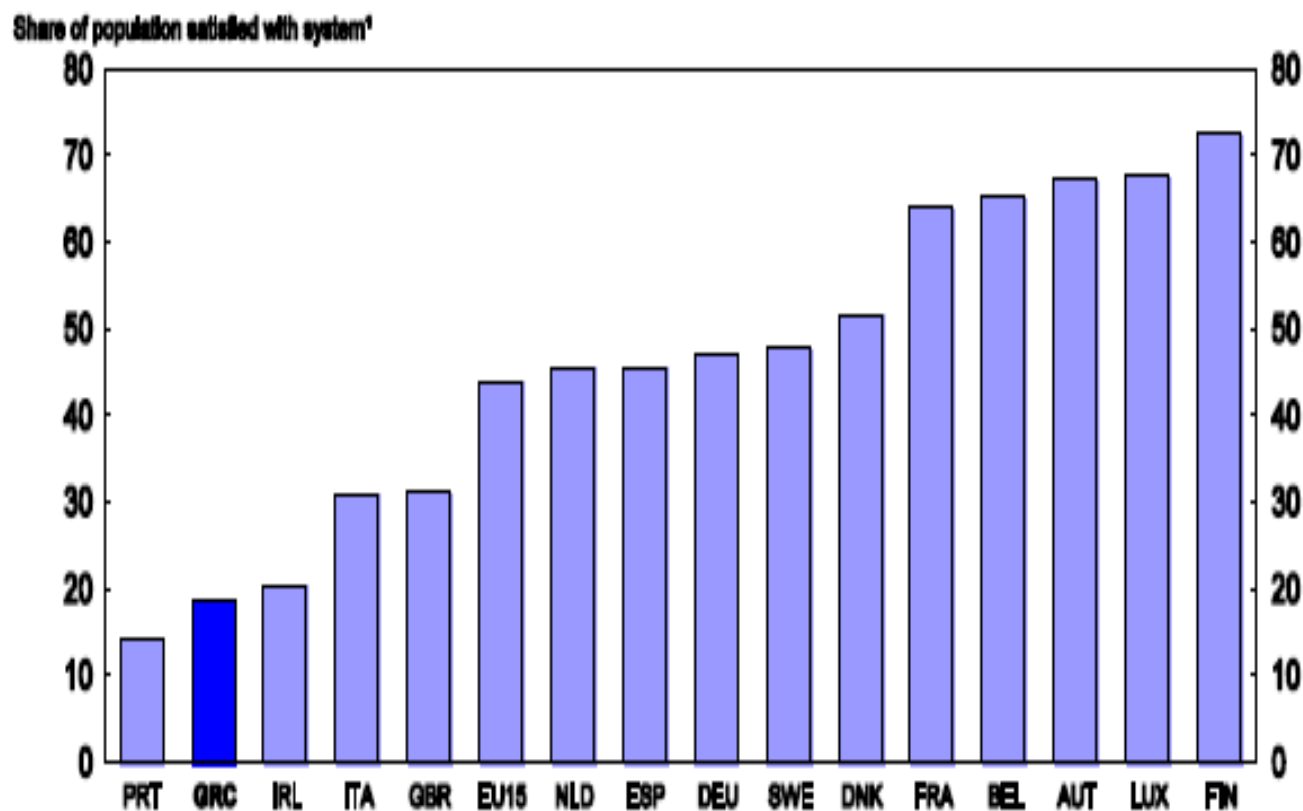


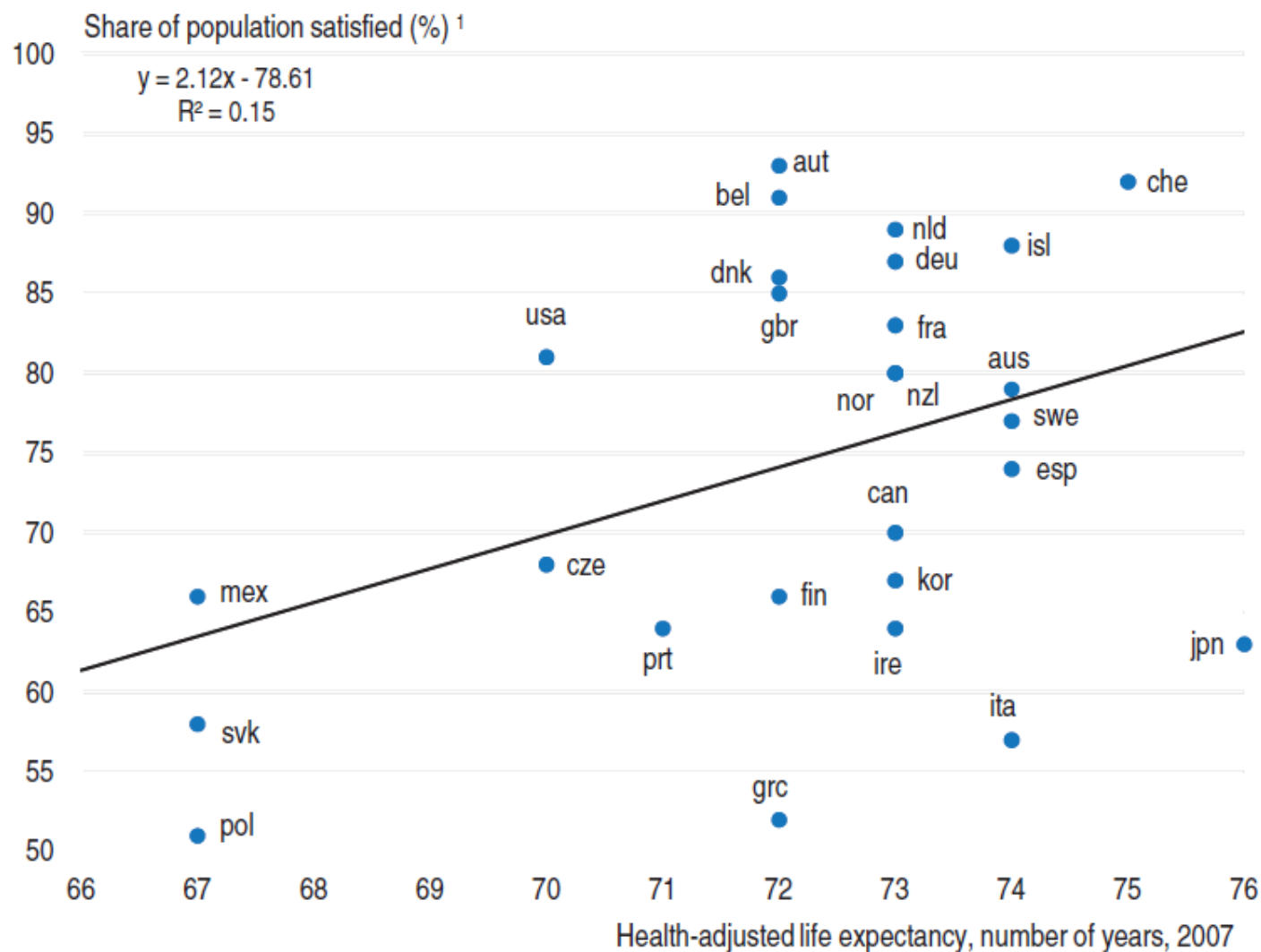
Figure 4. Public's satisfaction with health care system, EU countries, 2002



1. Runs and only minor changes would make it work better.

Source: OECD Health 2008, Eurobarometer, 2003.

Figure 1.6. **Public satisfaction and health-adjusted life expectancy**



1. Share of population satisfied with availability of quality health care, 2008.

Source: WHO, *World Health Statistics 2010*; OECD Health Data 2009.

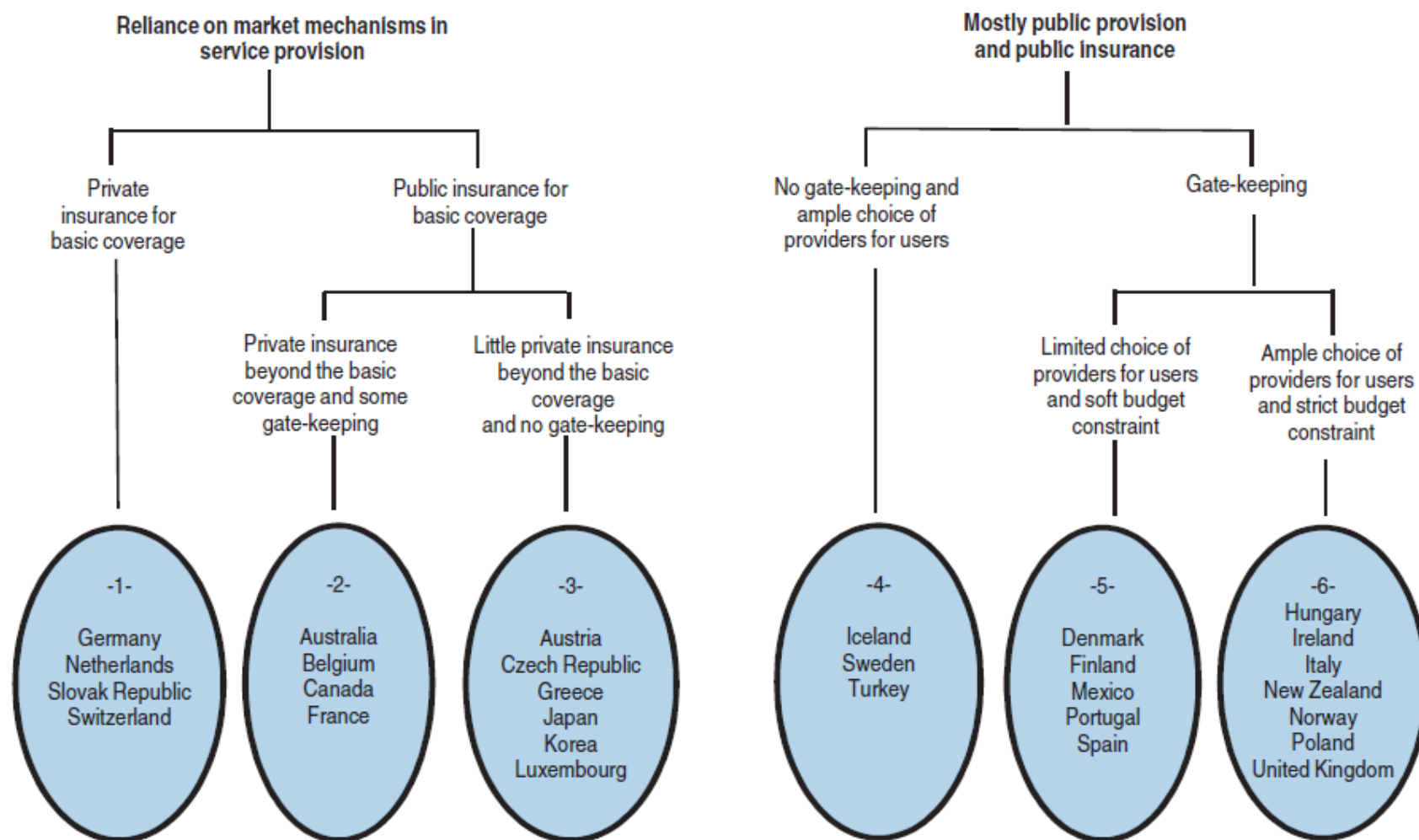
Συγκριτική ανάλυση Συστημάτων Υγείας

Health Care Systems

EFFICIENCY AND POLICY SETTINGS



Figure 0.1. Groups of countries sharing broadly similar institutions



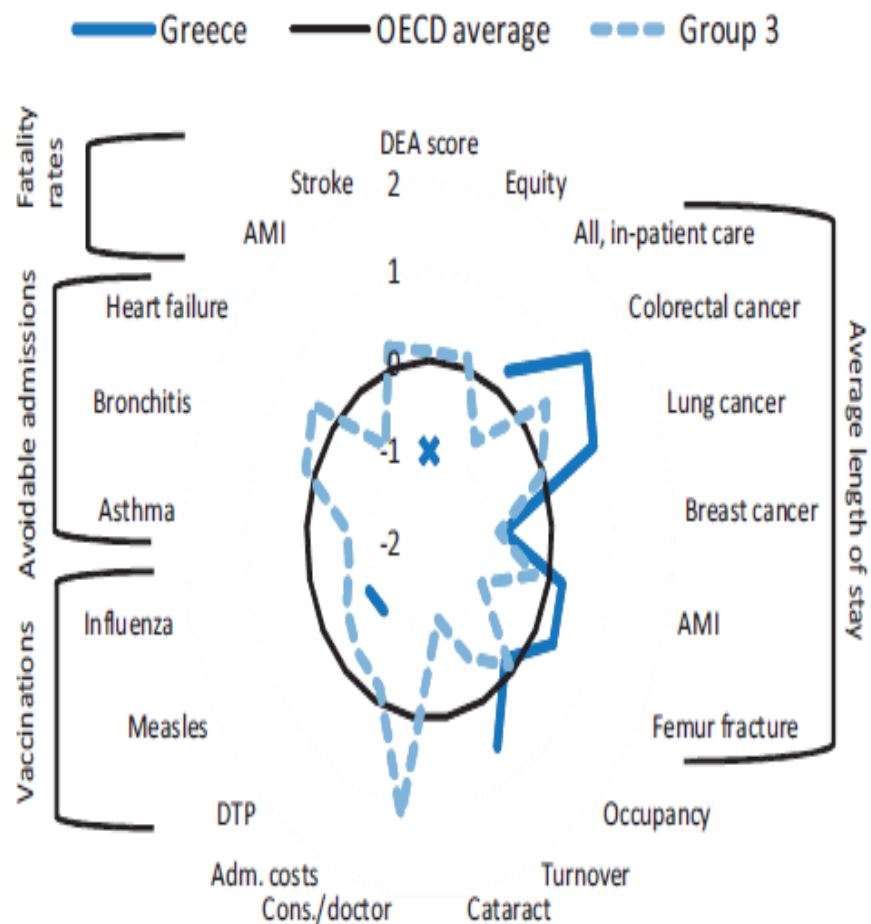
The countries on the left such as Germany and the Netherlands tend to rely on market mechanisms to supply health care whereas those on the right such as Finland and the United Kingdom depend more on public command and control. Apparently diverse countries fit the same group; the rules in Iceland, Sweden and Turkey for instance all provide for ample user choice, even if in practice there are geographical and other constraints. Note that the United States did not participate in the survey.

Source: OECD.

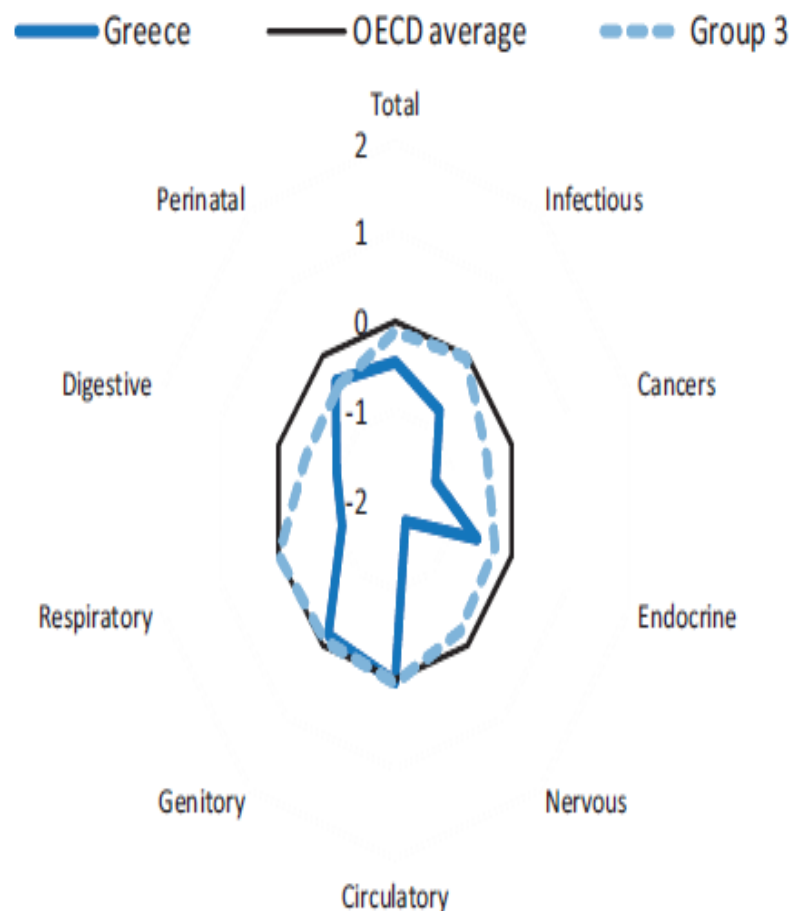
Greece: health care indicators

Group 3: Austria, Czech Republic, Greece, Japan, Korea, Luxembourg

A. Efficiency and quality

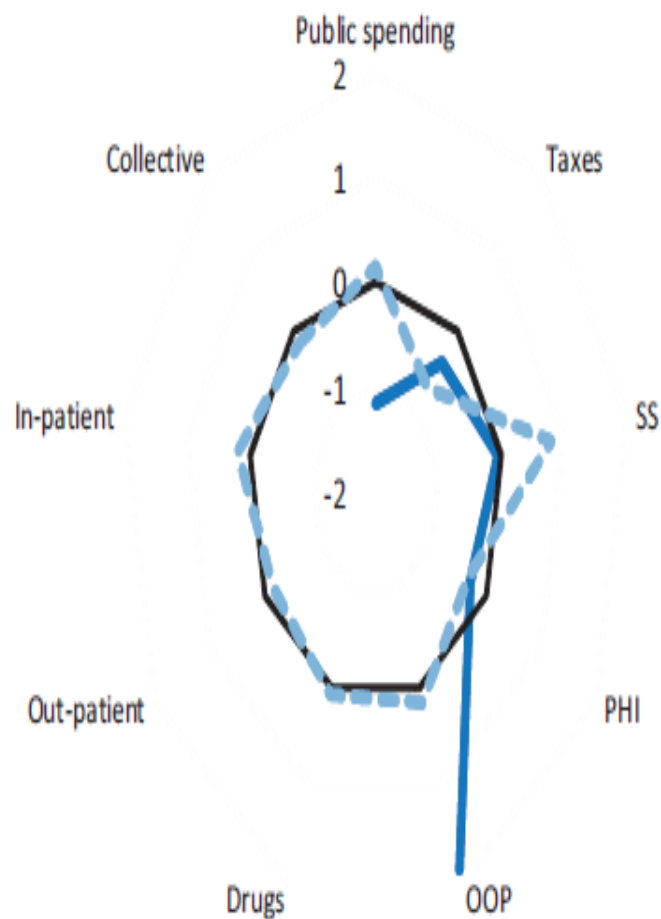


B. Amenable mortality by group of causes



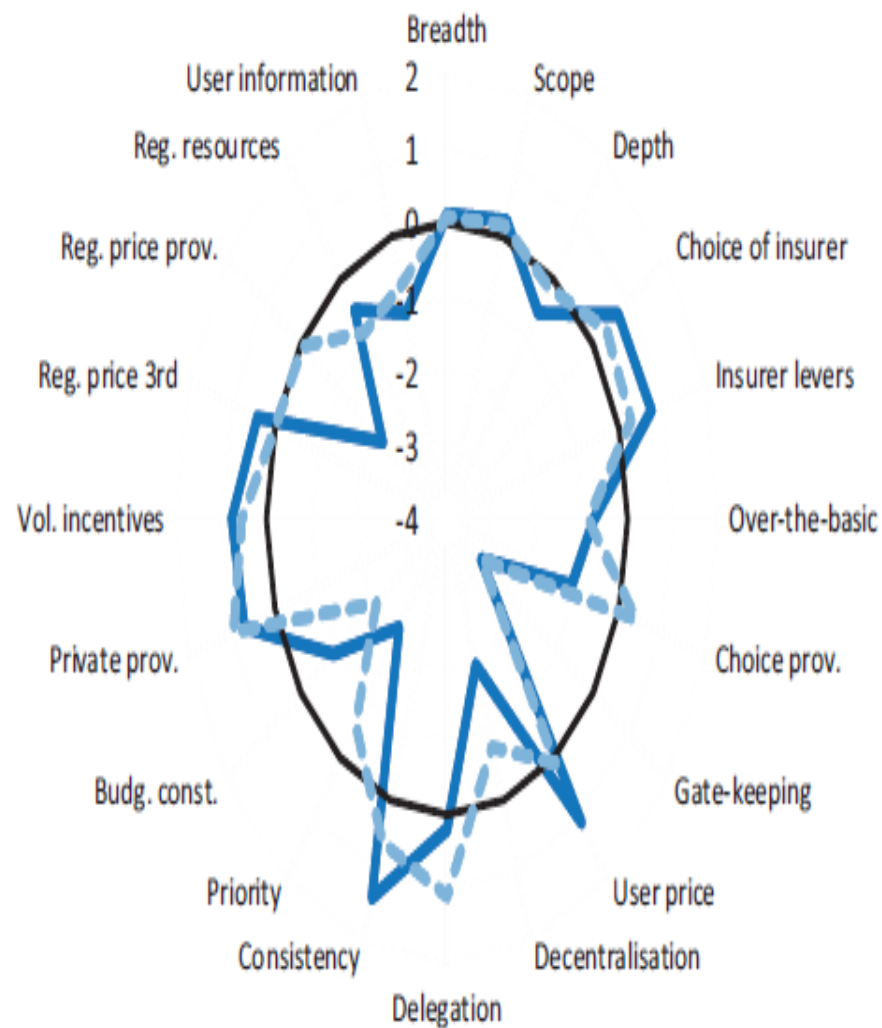
E. Financing and spending mix

— Greece — OECD average - - - Group 3



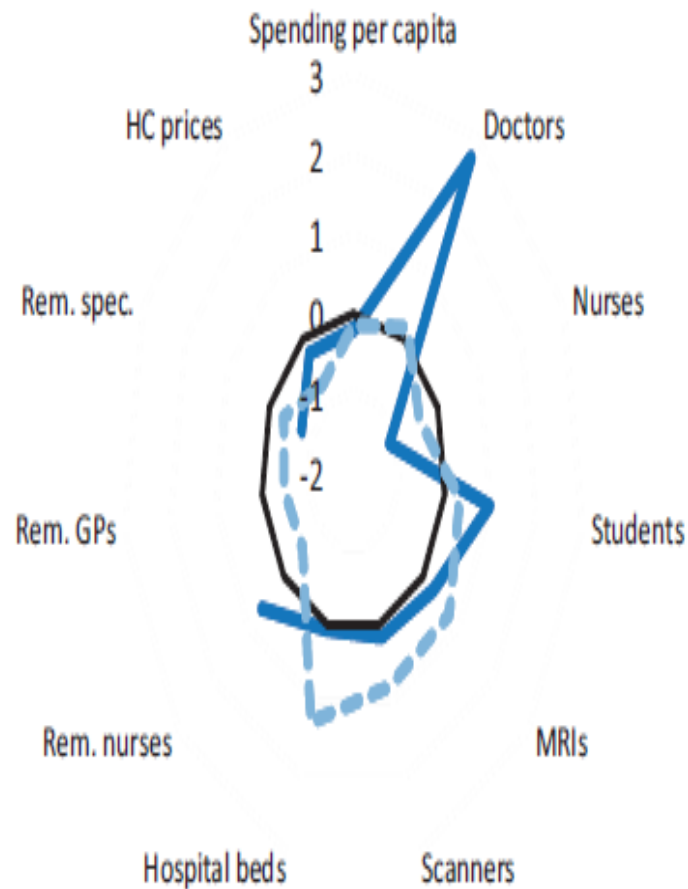
F. Policy and institutions

— Greece — OECD average - - - Group 3



C. Prices and physical resources

— Greece — OECD average - - - Group 3



D. Activity and consumption

— Greece — OECD average - - - Group 3

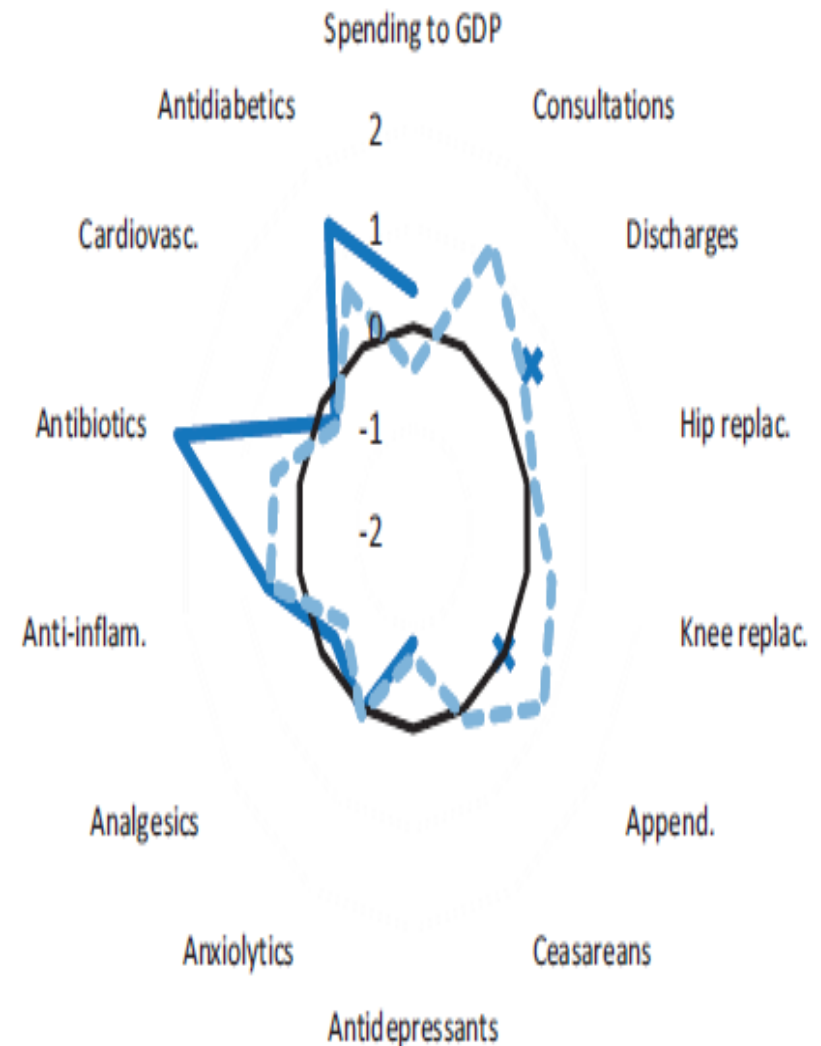
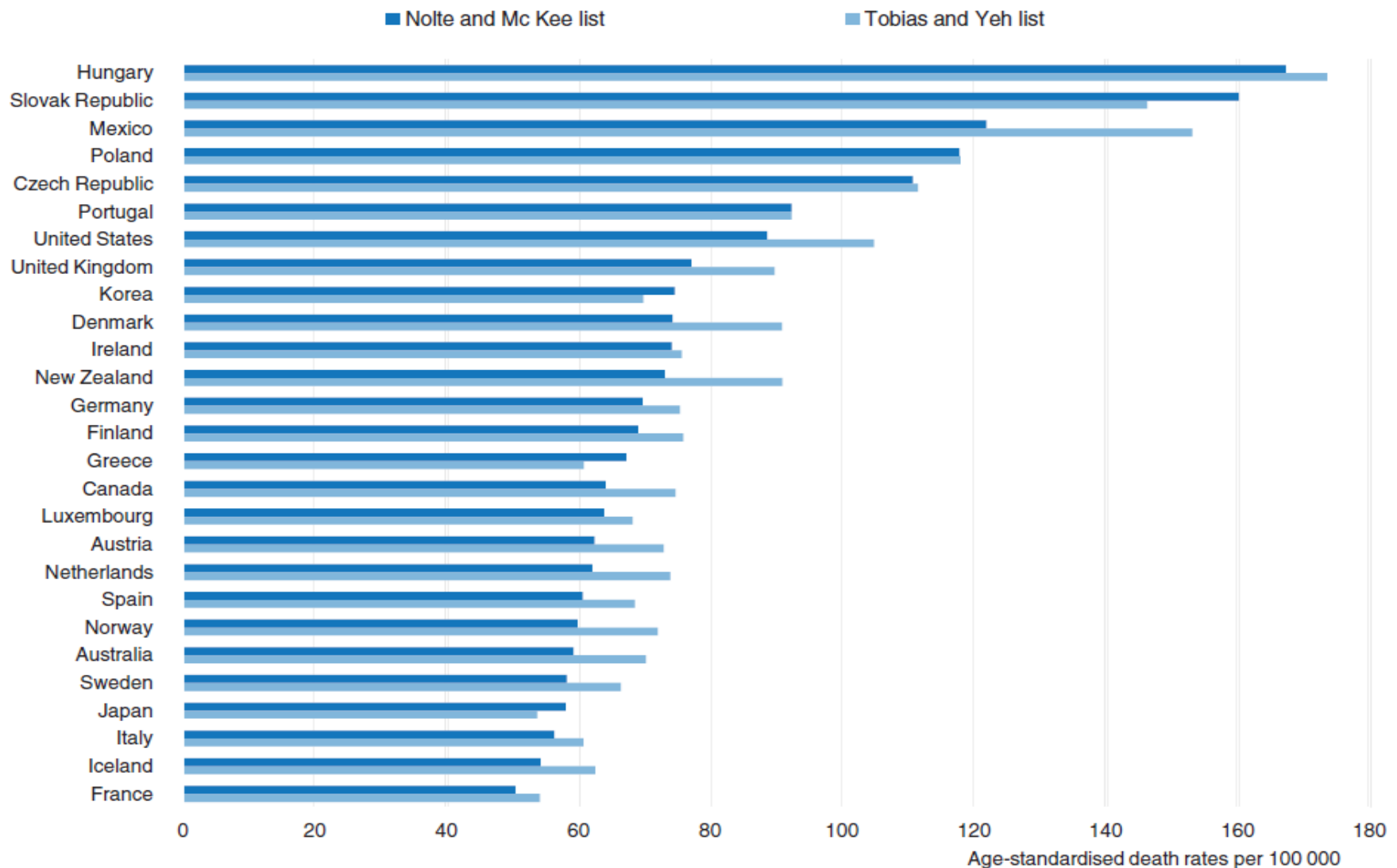


Figure 1.2. Amenable mortality: international comparisons using two different lists

All causes, 2006 or latest year available



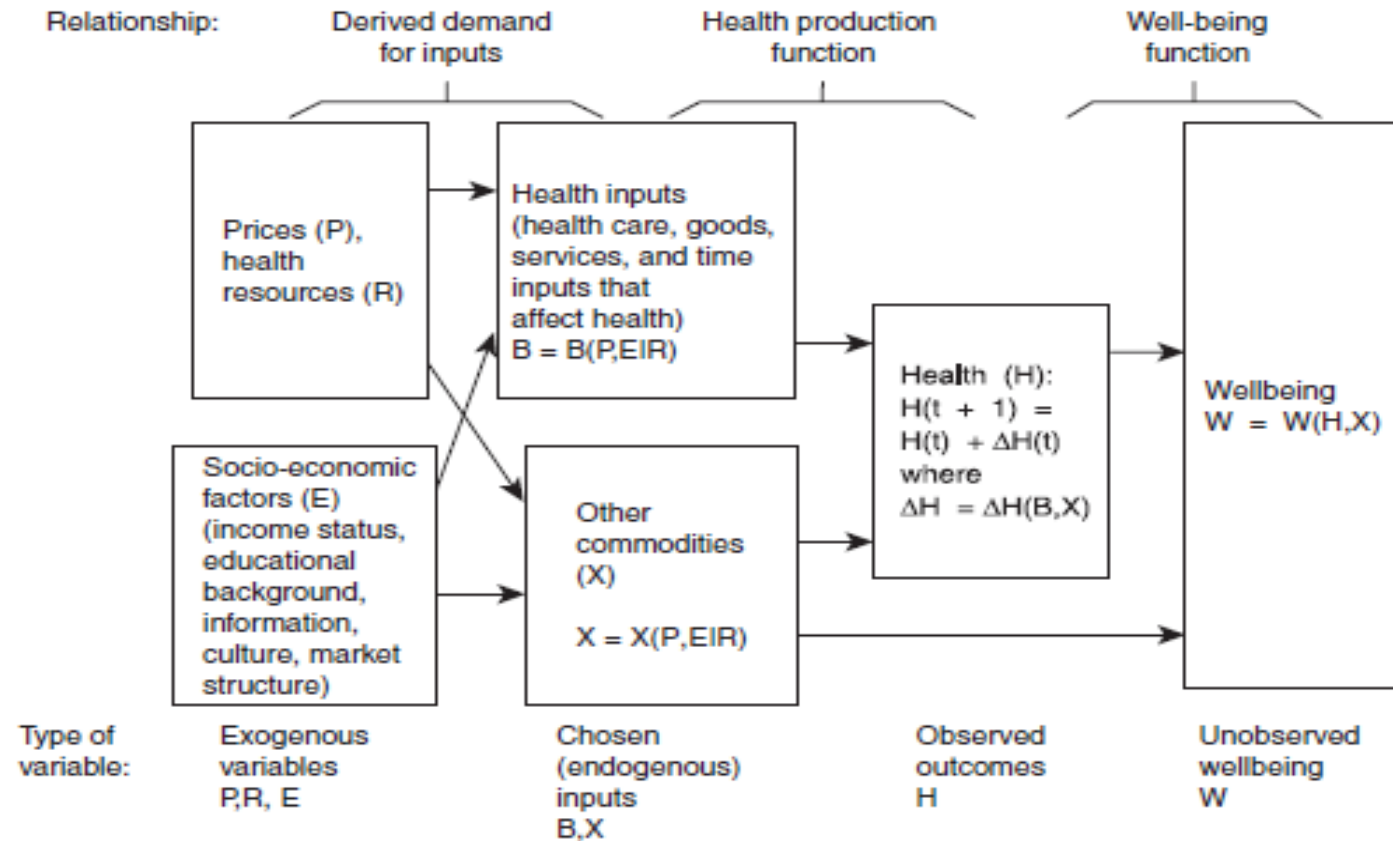
1. Amenable mortality lists specify both causes of death and age-specific limits for each cause. Various lists exist. Results shown here are based on those developed by Nolte and Mc Kee (2008) and by Tobias and Yeh (2009).

Source: OECD estimates.

Συγκριτική ανάλυση Συστημάτων Υγείας Σύνθετες Μέθοδοι

Παραγωγή υπηρεσιών, υγείας, ευημερίας

22 Health and efficiency concepts



Reproduced from DaVanzo and Gertler (1990) with permission from the RAND corporation.

Figure 2.5 A model of the production of health.

Table 2.1. Contributions of main explanatory variables to changes in health status

1991-2003

	Gains in life expectancy				Decline in infant mortality rate	Memorandum item: 1991-2003 changes
	At birth		At 65			
	Female	Male	Female	Male		
Explained by ¹ :	Years				Deaths/1 000 live births	Per cent
Health care spending	1.14	1.34	0.38	0.37	- 2.53	51.7
Smoking	0.00	0.12	0.09	0.21	- 0.21	- 22.6
Alcohol	0.06	0.07	0.02	0.00	- 0.24	- 6.7
Diet	0.02	0.02	0.02	0.03	0.03	7.4
Pollution	0.15	0.29	0.15	0.22	- 0.75	- 19.7
Education	0.50	0.49	0.26	0.14	- 0.89	24.8
GDP	0.11	0.63	0.20	0.39	- 1.01	28.5
Memorandum item:						
Observed changes	2.49	3.45	1.40	1.63	- 4.67	

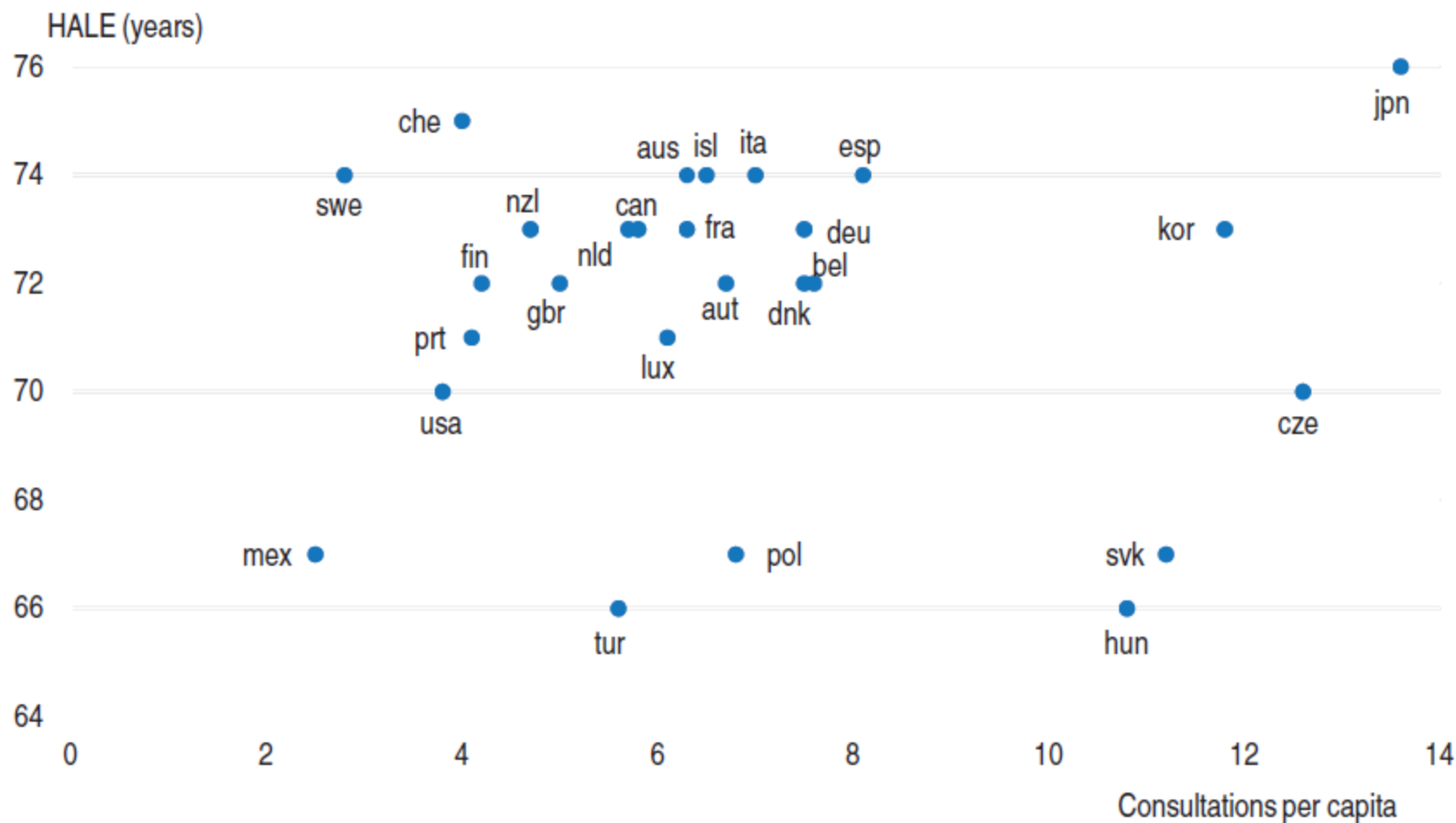
1. Contributions of health status determinants are calculated using coefficients estimated by the model (panel data regressions on a sample of countries for which data were available). Observed changes in health status are calculated for the OECD area. The sum of identified contributions may thus differ from the actual change in health status measures.

Source: OECD calculations.

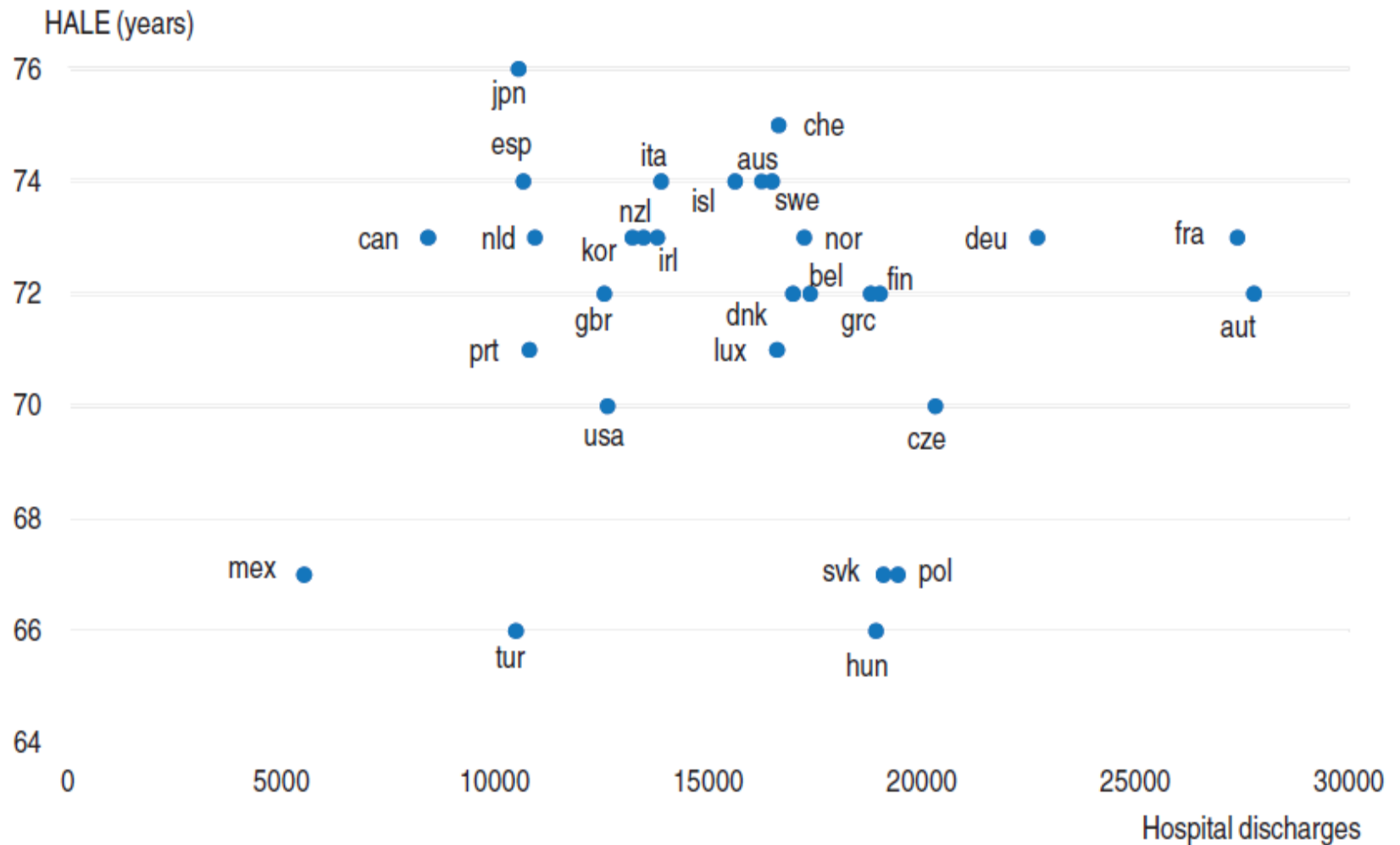
Figure 1.3. **Health care outputs are hardly correlated with outcomes**

2007 or latest available year

A. Doctor's consultations per capita versus HALE¹



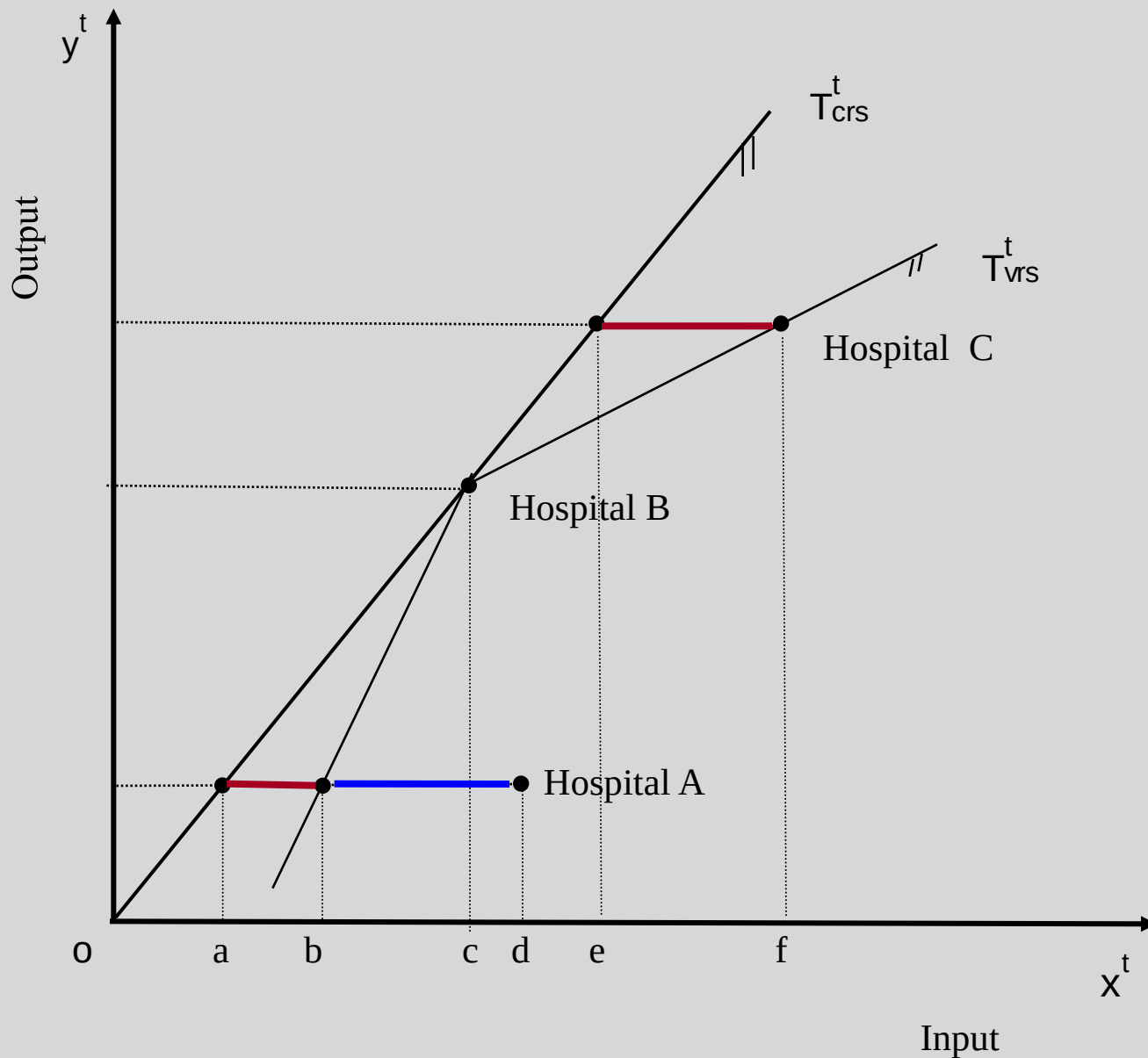
B. Hospital discharges versus HALE¹



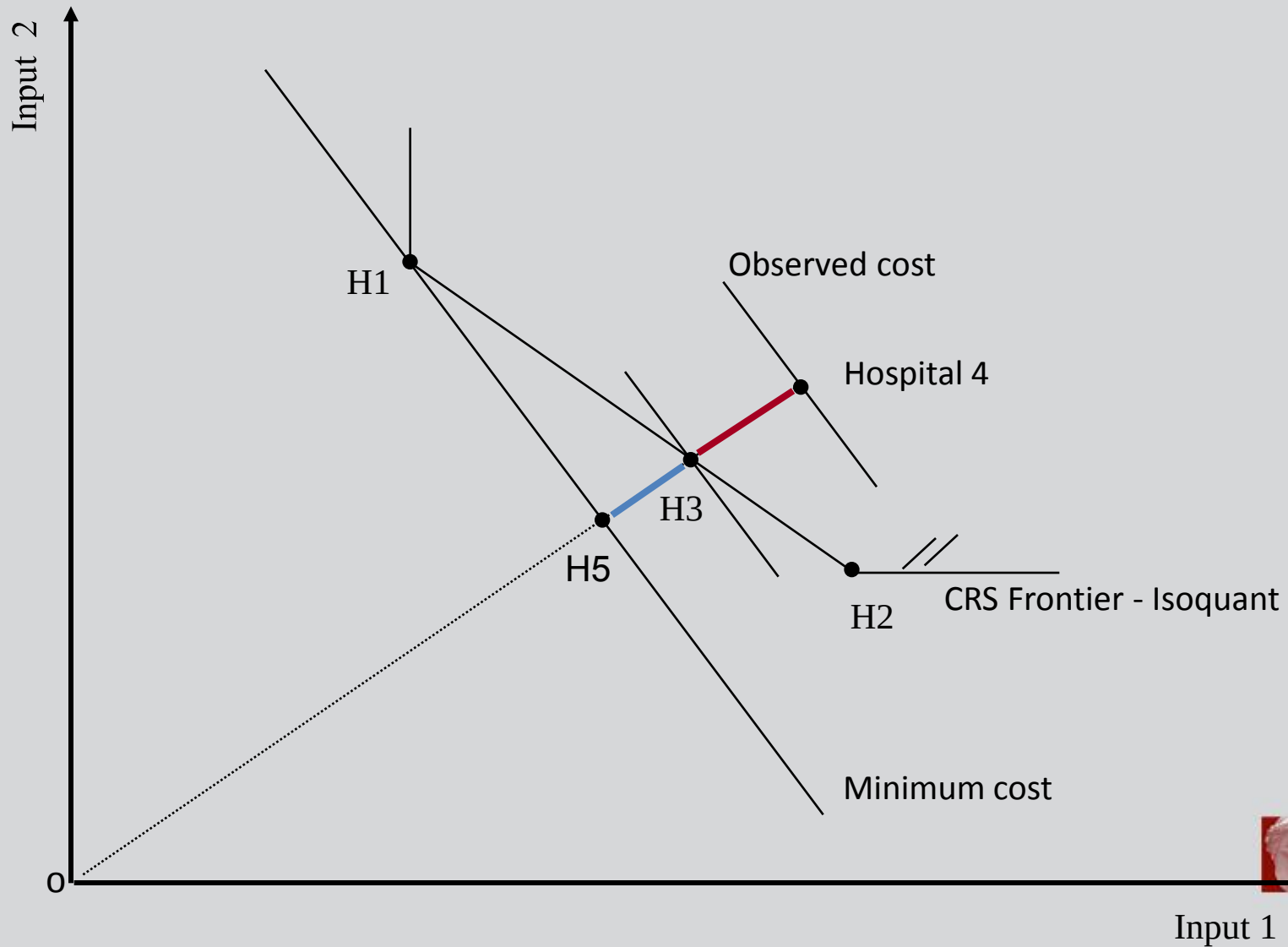
1. Health-adjusted life expectancy (HALE) at birth (years).

Source: WHO, *World Health Statistics 2010*; OECD Health Data 2009.

Μέτρηση αποδοτικότητας-αποτελεσματικότητας



Κατανομής



Μετρήσεις

- Econometrics
 - Deterministic Frontier Analysis
 - Stochastic Frontier Analysis
- Operations Research
 - Data Envelopment Analysis
 - Parametric programming

Data Envelopment Analysis Models:

$$TE_i^t(y^t, x^t | c) = 1/D_i^t(y^t, x^t | c) = \min_{\lambda} \lambda$$

Subject to:

$$\sum_{j=1}^J z_j y_{jm}^t \geq y_{km}^t$$

$$\sum_{j=1}^J z_j x_{jn}^t \leq \lambda x_{kn}^t$$

$$z_j \geq 0$$

Μελέτες

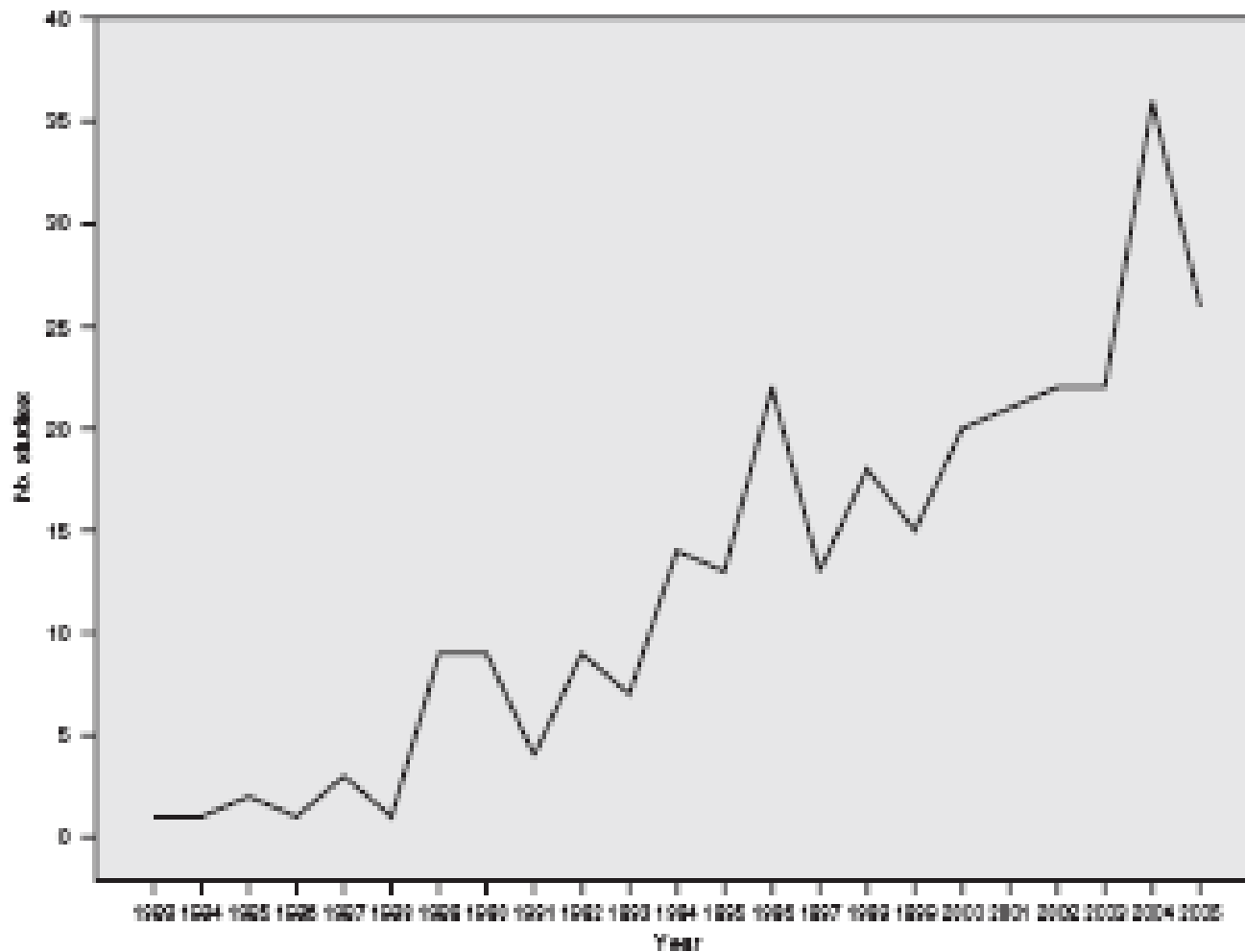


Figure 5.1 Number of efficiency studies 1983–2005.

DEA is the dominant approach

Application of efficiency measurement in health services

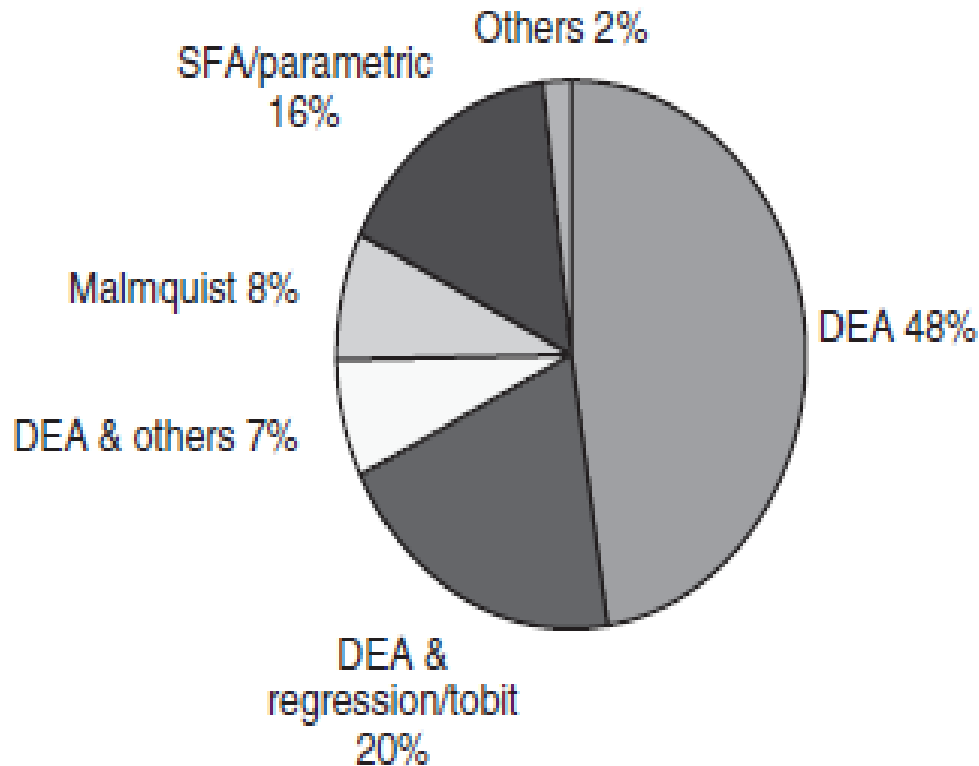


Figure 5.2 Methods used in reported studies.

Many areas of application

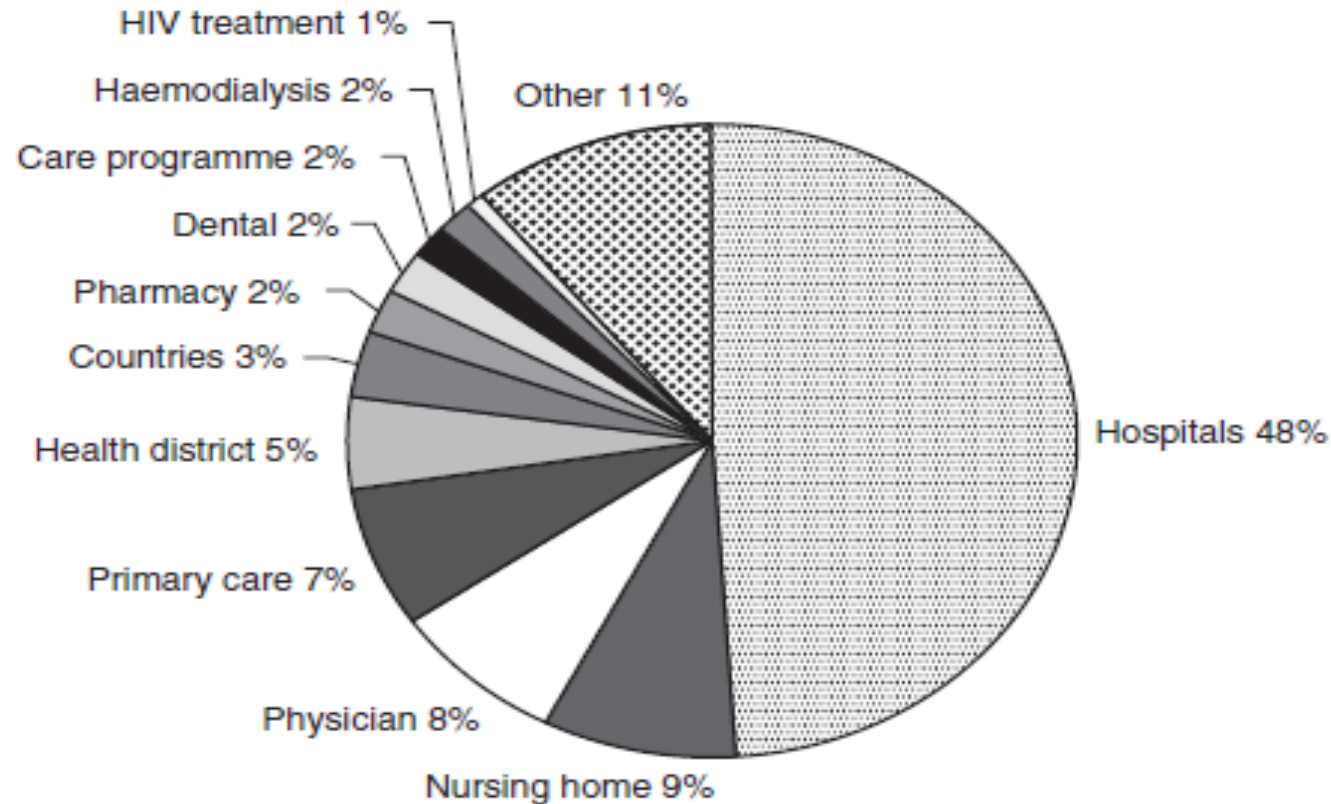


Figure 5.3 Areas of application.

Evidence

Table 5.1 Summary statistics for hospital efficiency scores.

	<i>No.</i>	<i>Mean</i>	<i>Median</i>	<i>St. dev.</i>	<i>Minimum</i>
For-profit	4	0.801	0.855	0.130	0.61
Not-for-profit	11	0.831	0.850	0.109	0.60
Public	15	0.904	0.94	0.083	0.72
Defence/VA	6	0.885	0.895	0.056	0.82
Non-teaching	2	0.742	0.742	0.046	0.71
Teaching	3	0.673	0.650	0.087	0.60
Acute/general	26	0.835	0.821	0.085	0.65
Non-specified	21	0.849	0.872	0.109	0.61
Psychiatric	1	0.47	0.47	—	0.47
All hospitals	89	0.839	0.87	0.109	0.47
USA Hospitals	56	0.826	0.845	0.116	0.47
Euro. Hospitals	22	0.876	0.894	0.081	0.72
Non-USA/EU	11	0.870	0.906	0.099	0.724

A lot of variation exists at unit level

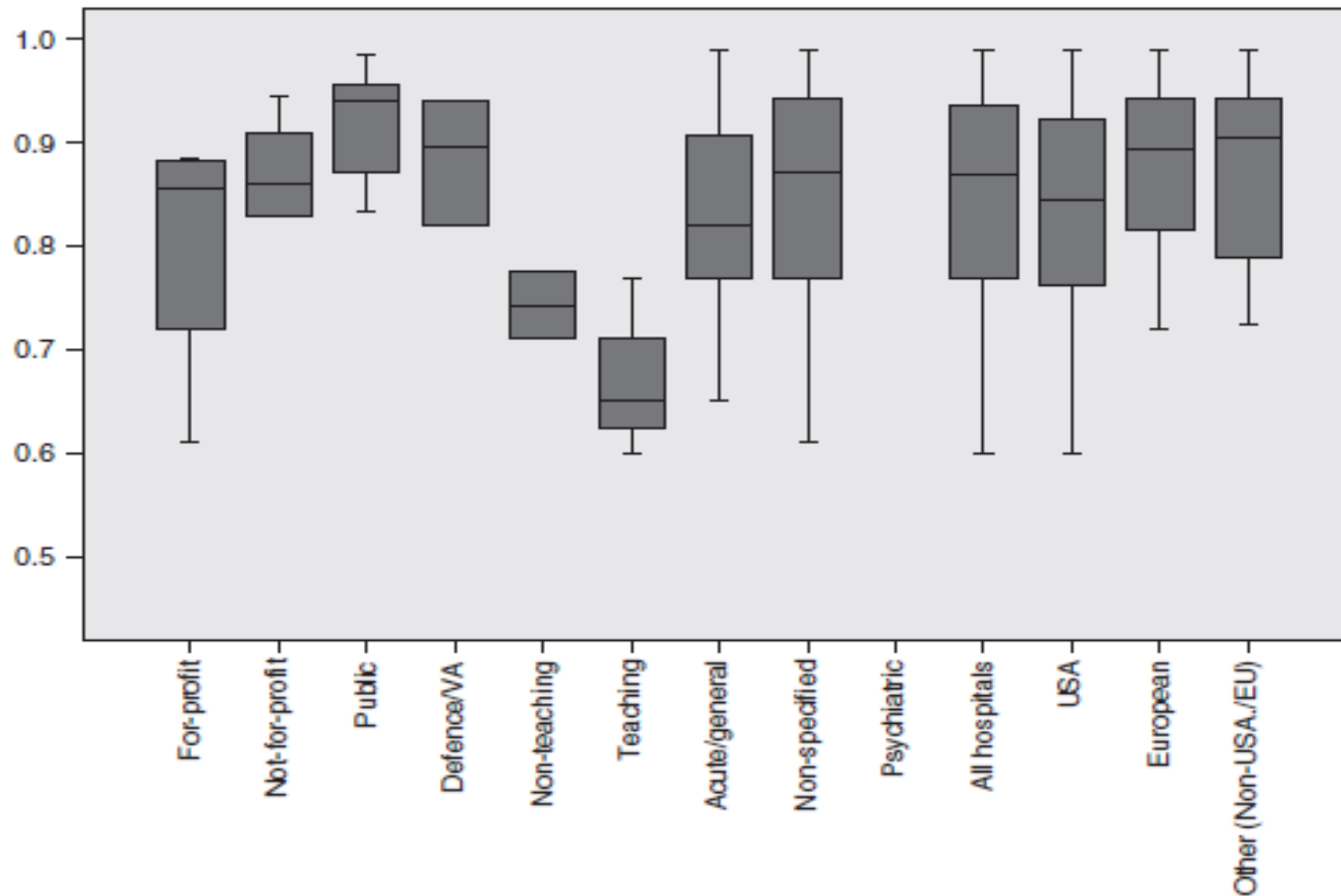
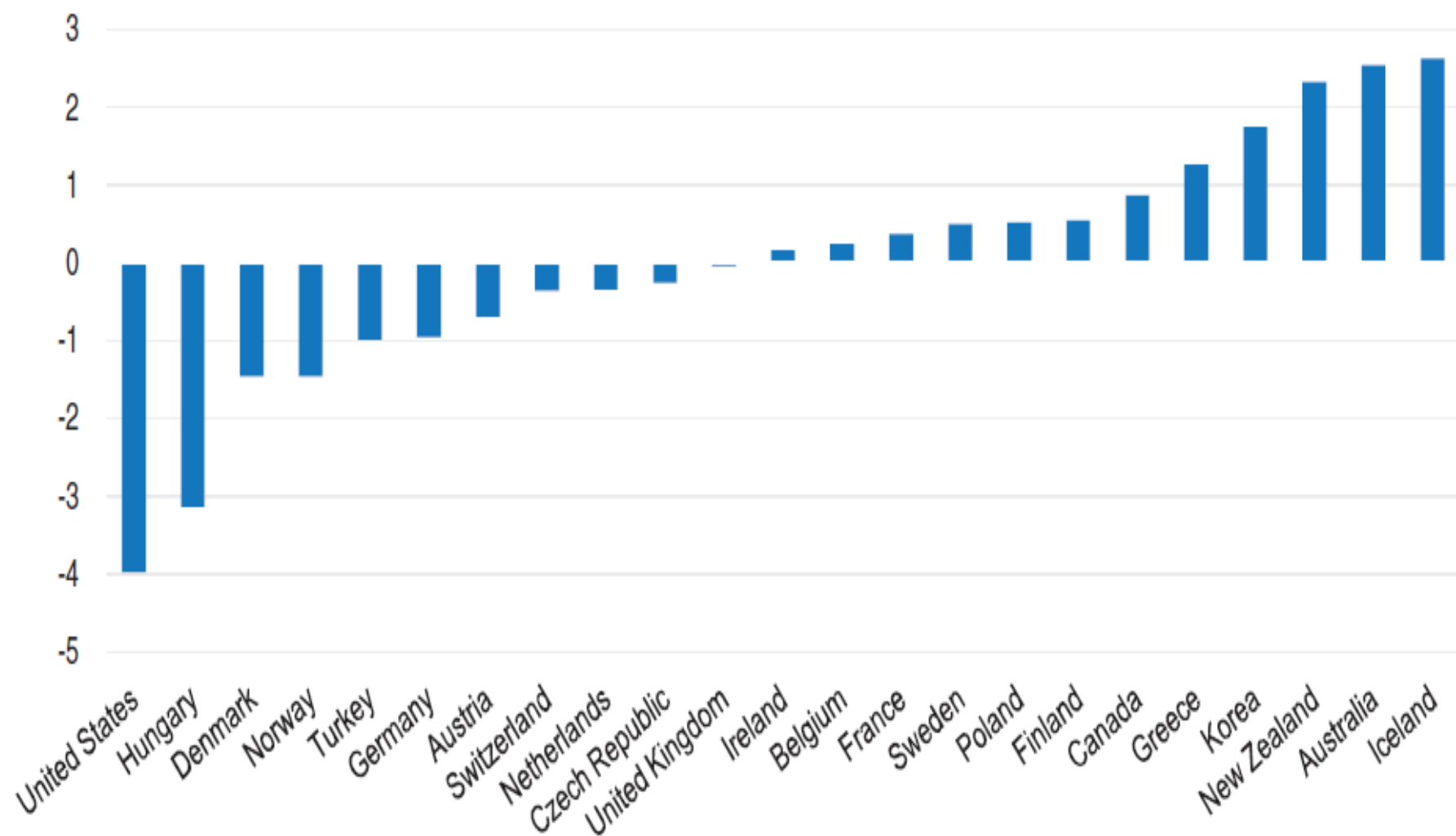


Figure 5.4 Box-plot of distribution of efficiency scores by category of hospital.

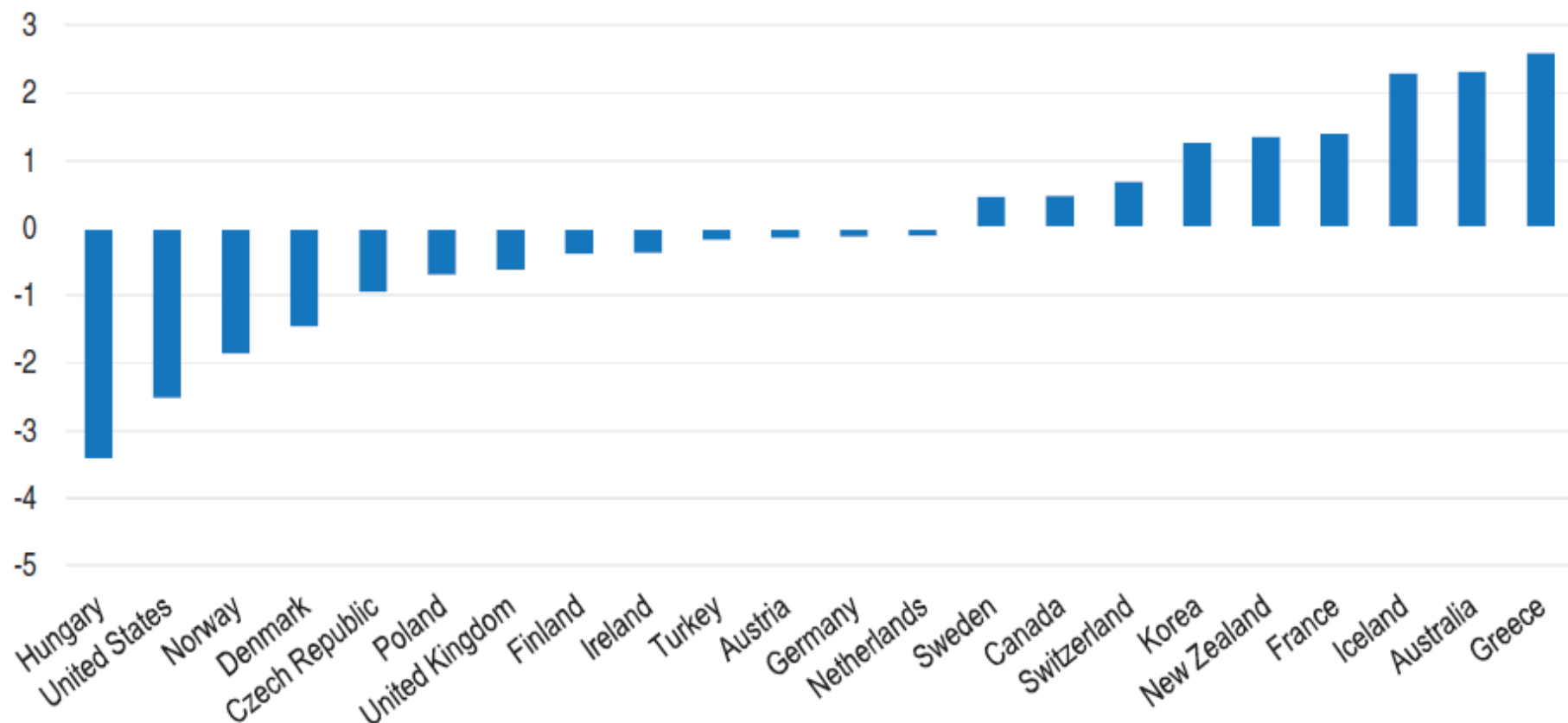
Figure 2.5. Panel regressions: years of life which are not explained by the general model¹

2003

Panel A. With health care resources measured in monetary terms



Panel B. With health care resources measured by the number of health practitioners

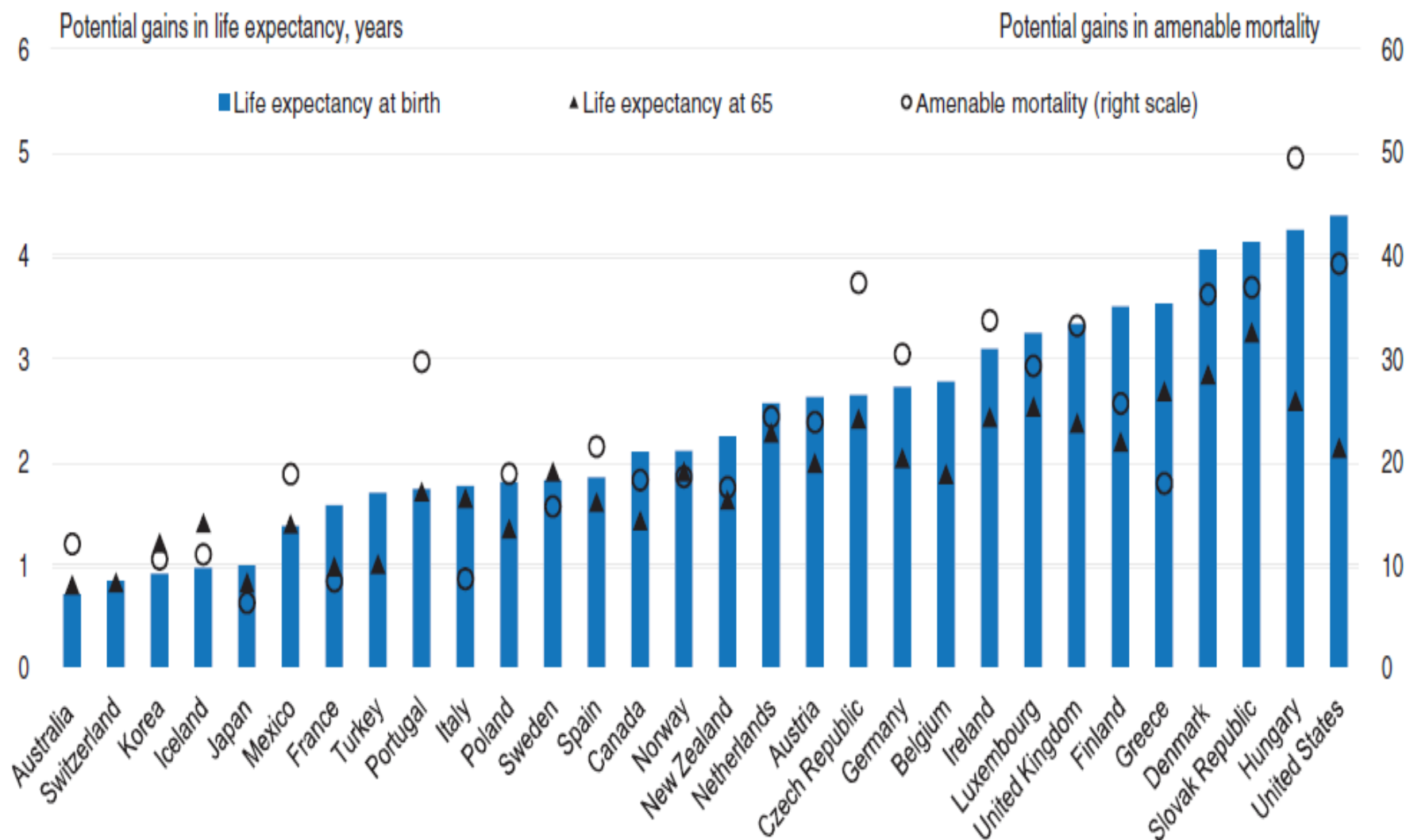


1. Model residuals and country fixed-effects deviations from averages are added and considered as a proxy for relative efficiency (*i.e.* the years shown in the figure can be viewed as years of life that would be saved (or lost) if country *i* was as efficient as the OECD average). A Spearman rank correlation of .76 indicates a strong correlation in the ranking obtained by the two panel regressions.

Source: OECD calculations.

Figure 2.7. DEA efficiency scores are fairly robust to changes in specification

Panel A. Sensitivity of DEA efficiency scores to the definition of outcomes¹



Panel B. Sensitivity of DEA efficiency scores to the inclusion of different inputs²

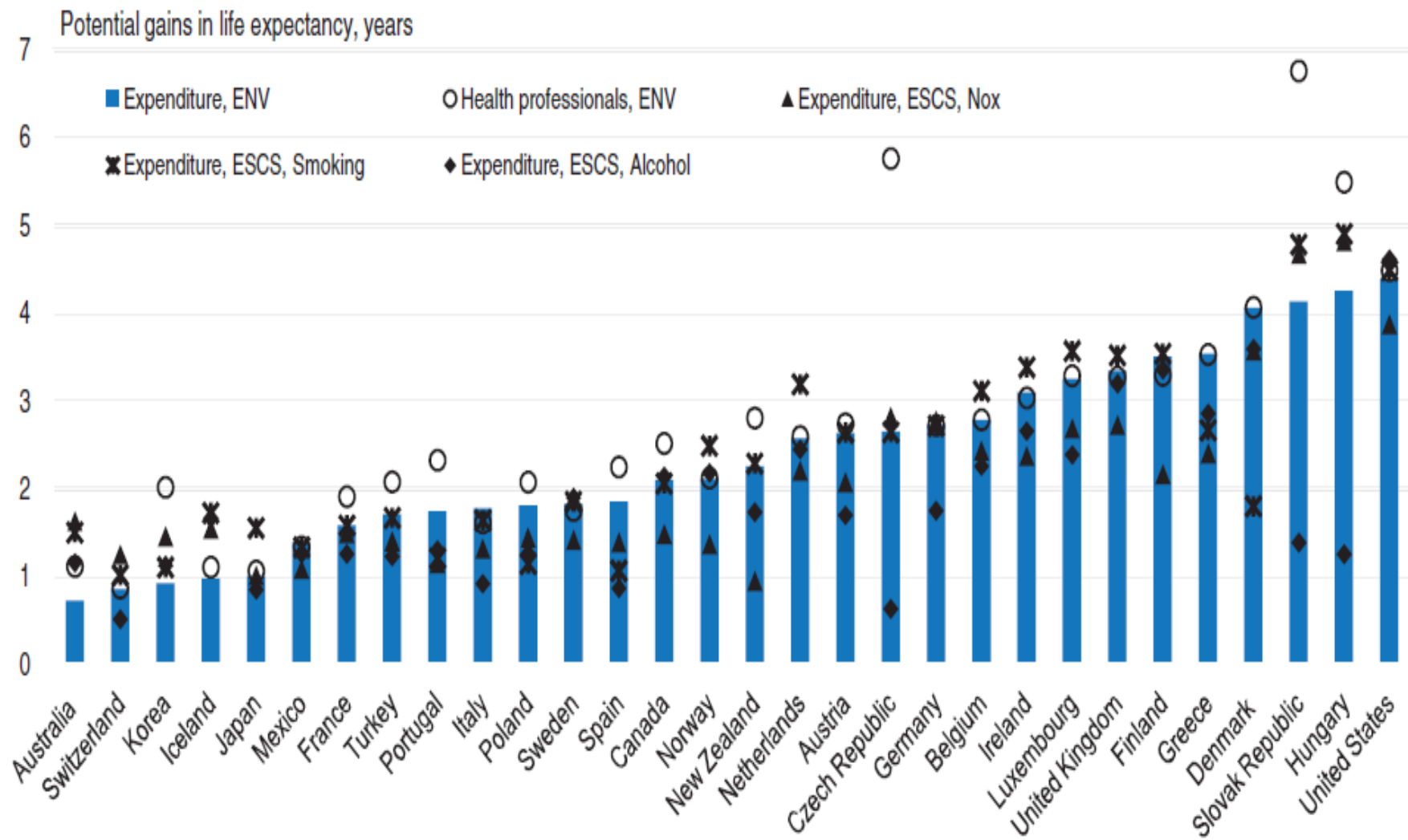
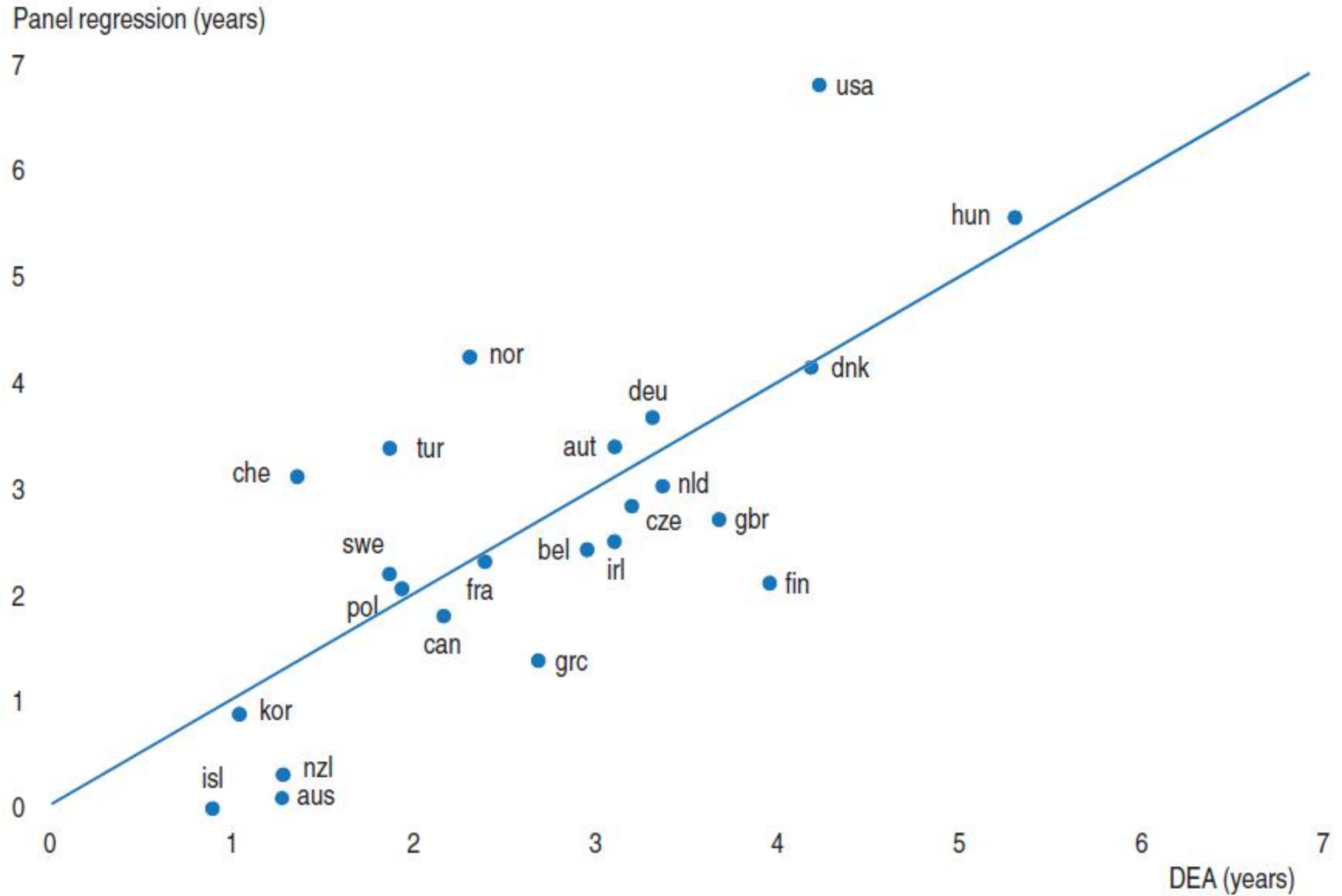


Figure 2.8. Comparing DEA and panel data regression results

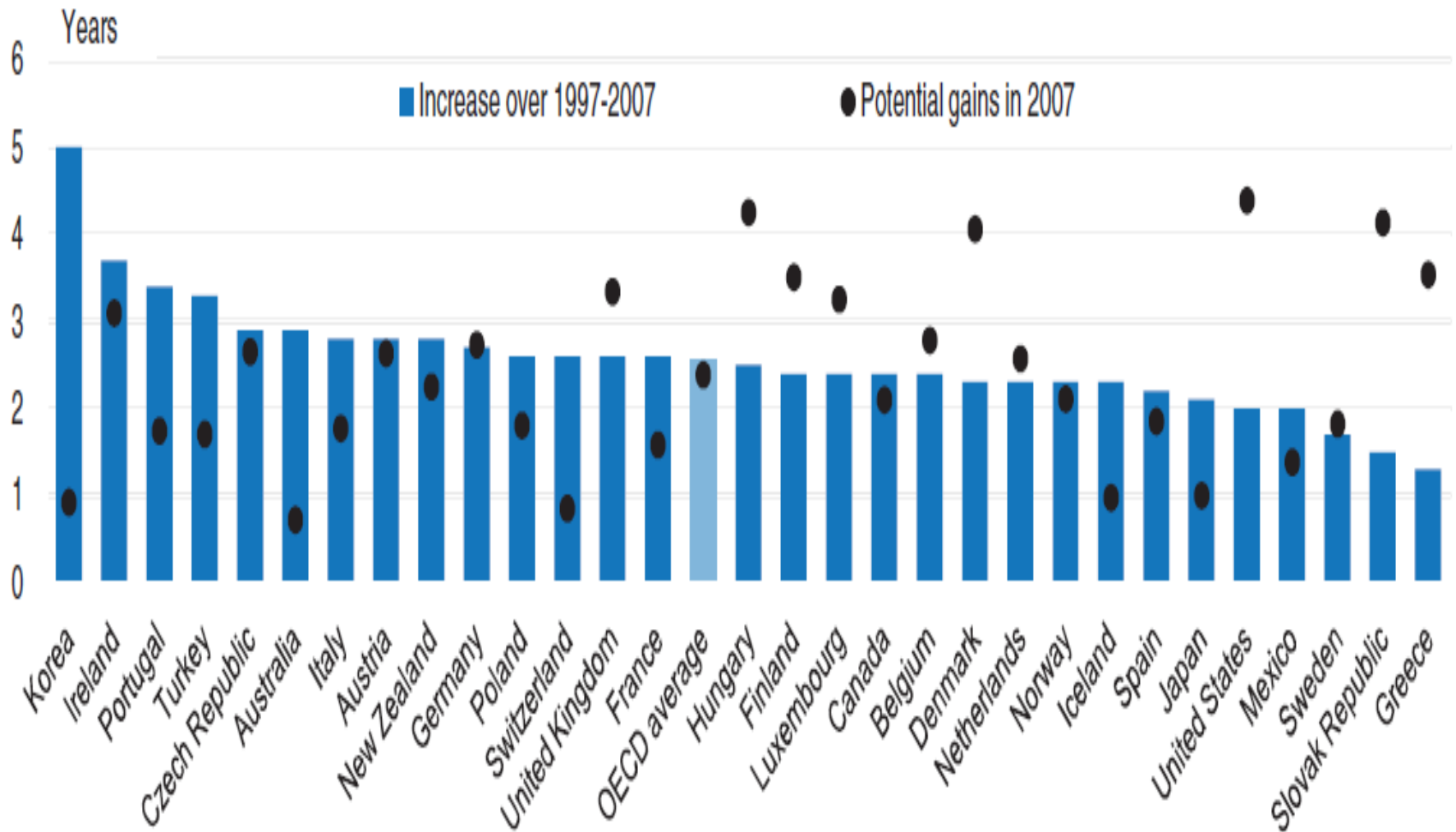
Potential gains in life expectancy at birth¹



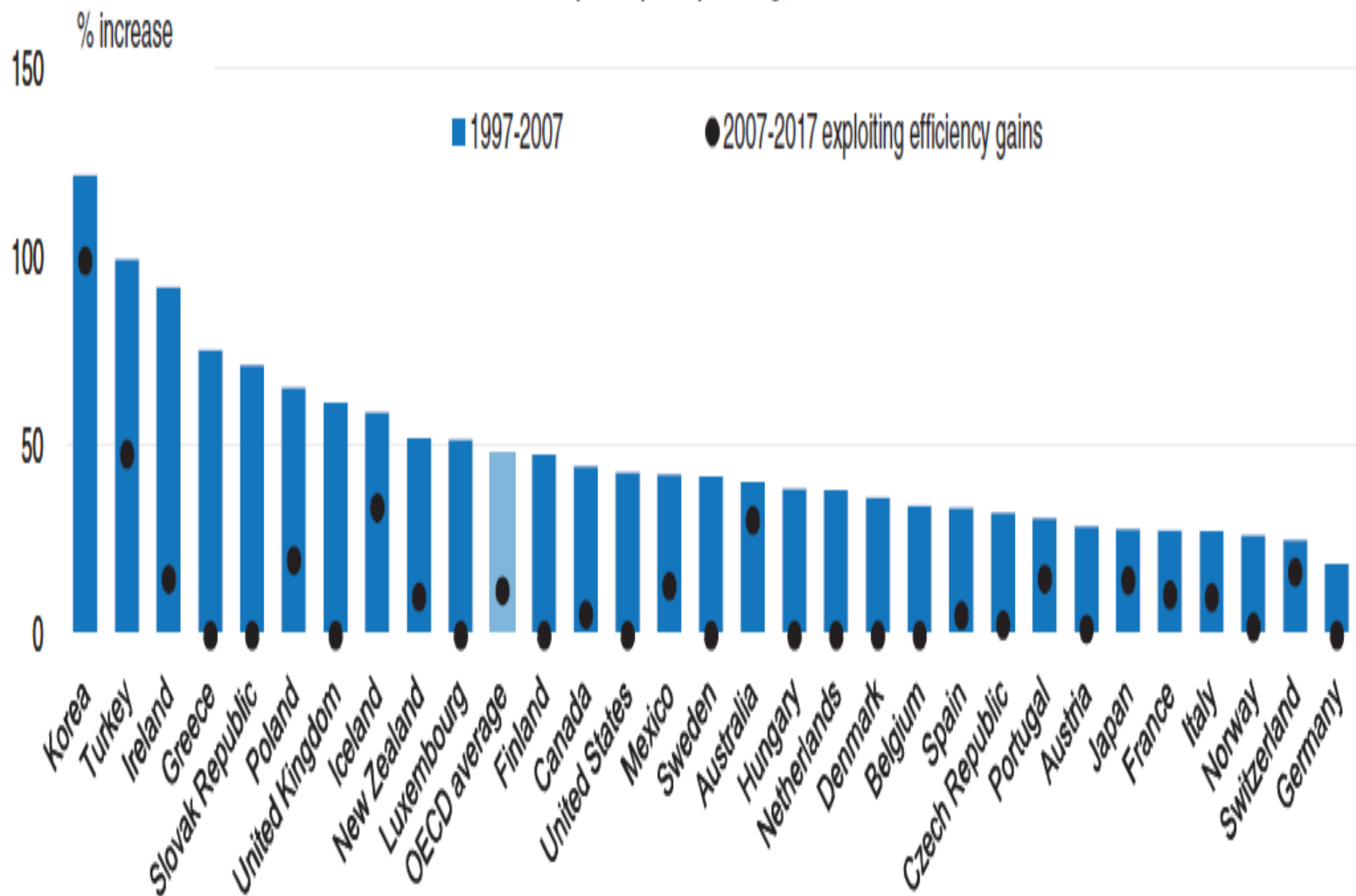
1. Potential gains are measured as the number of years of life that could be saved if efficiency in

Figure 2.9. Achieving efficiency gains would help contain spending over time

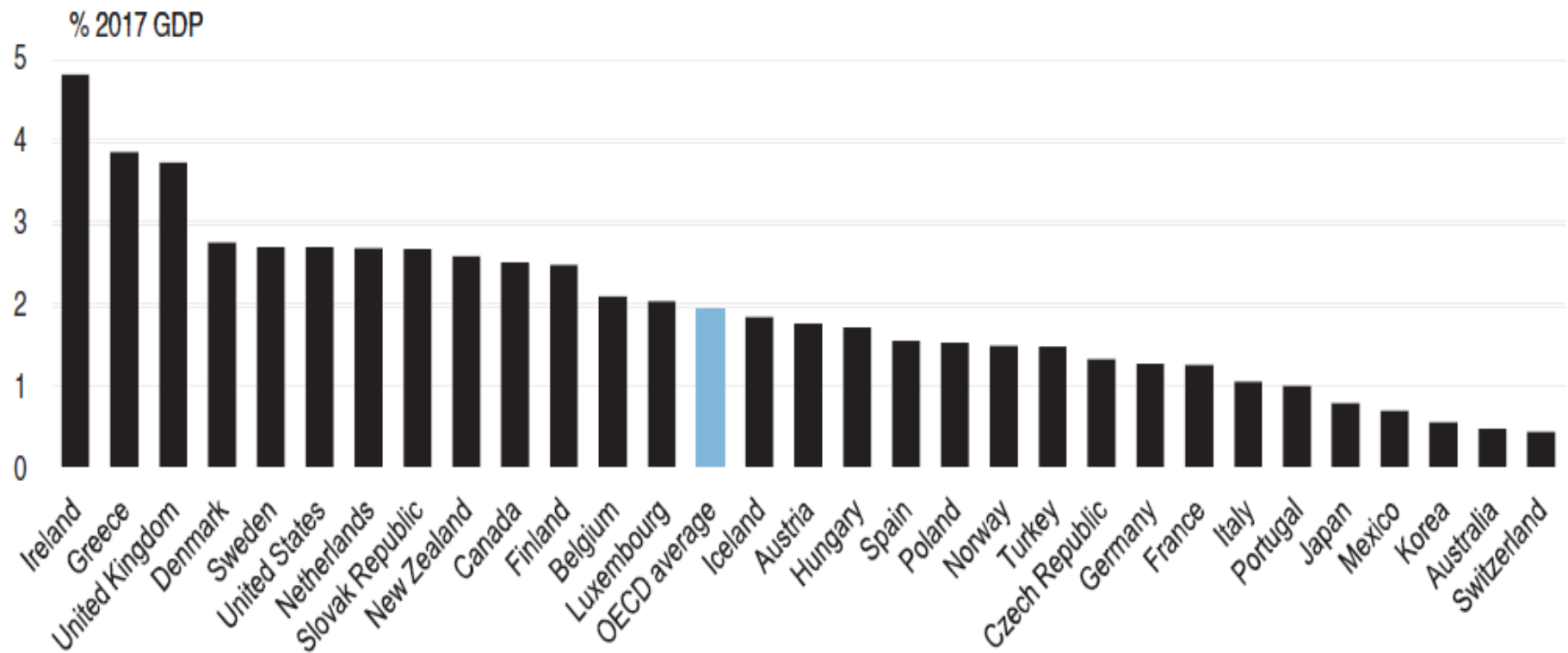
A. Gains in life expectancy¹



B. Increase in per capita spending, in real terms²



C. Potential savings in public spending ³



1. Potential gains are derived from an output-oriented DEA analysis performed with one output (life expectancy at birth) and two inputs (health care spending and a composite indicator of the socio-economic environment and lifestyle factors). They are measured by the number of years of life that could be saved if efficiency in country *i* were to be raised to the level implied by the estimated efficiency frontier while holding inputs constant and under the assumption of non-increasing returns to scale.
2. 2007-17: assuming that countries exploit estimated potential efficiency gains, life expectancy over the period 2007-17 could increase at the same pace as over the previous ten year period but at a much lower cost in many countries.
3. Potential savings represent the difference between a no-reform scenario and a scenario where countries would become as efficient as the best performing countries.

Source: OECD Health Data 2009; OECD calculations.

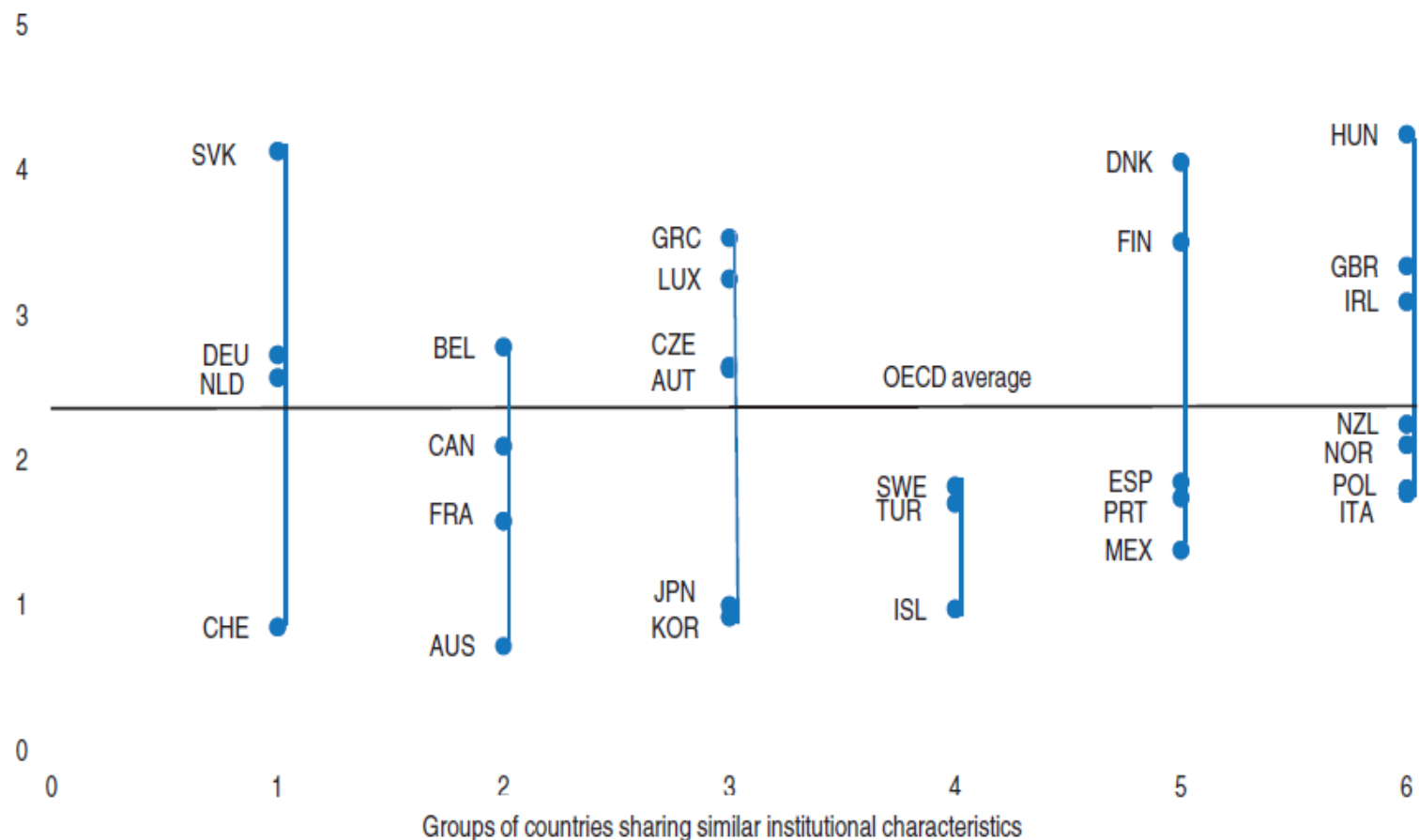
Table 4.4. DEA efficiency scores: means and variances within and across country groups

Country groups	Potential gains in life expectancy, years	
	Mean	Variance
Group 1: Germany, Netherlands, Slovak Republic, Switzerland	2.6	1.35
Group 2: Australia, Belgium, Canada, France	1.8	0.57
Group 3: Austria, Czech Republic, Greece, Japan, Korea, Luxembourg	2.3	1.04
Group 4: Iceland, Sweden, Turkey	1.5	0.14
Group 5: Denmark, Finland, Mexico, Portugal, Spain	2.5	1.14
Group 6: Hungary, Ireland, Italy, New Zealand, Norway, Poland, United Kingdom	2.7	0.74
Total	2.3	1.02
<i>of which</i>		
Intra-group	-	0.87
Inter-group	-	0.15

Source: OECD calculations.

Figure 4.3. DEA efficiency scores across and within country groups

Potential gains in life expectancy (years, DEA)



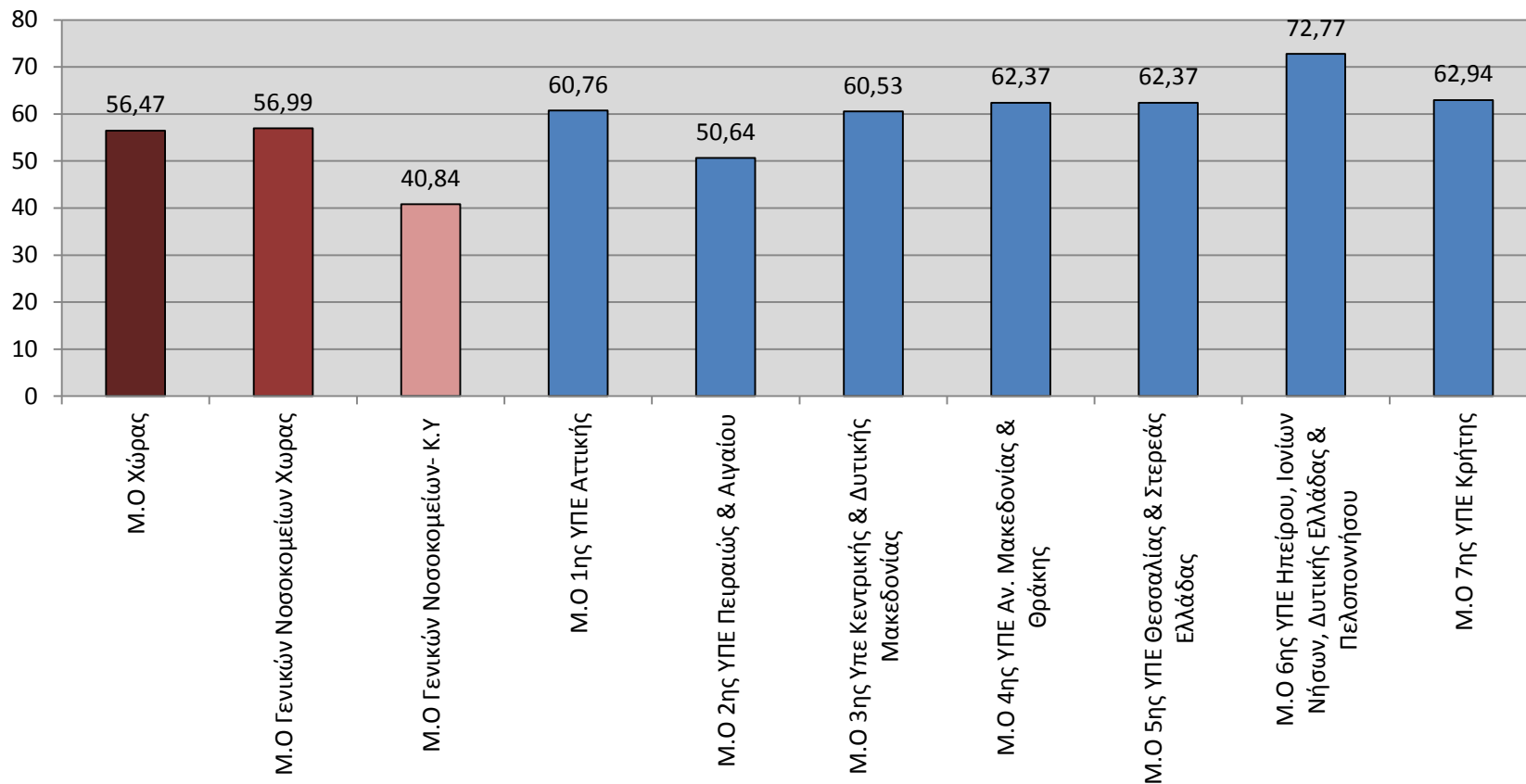
Note: Potential gains in life expectancy are derived from an output oriented DEA with *per capita* health care spending and a composite indicator of socio-economic environment and lifestyle factors as inputs for 2007. To facilitate the interpretation, the efficiency scores have been converted into potential gains in life expectancy, *i.e.* the gains that a country could achieve for a given level of spending if it were as efficient as the best performing country.

Source: OECD.

Συγκριτική ανάλυση Μονάδων Υγείας

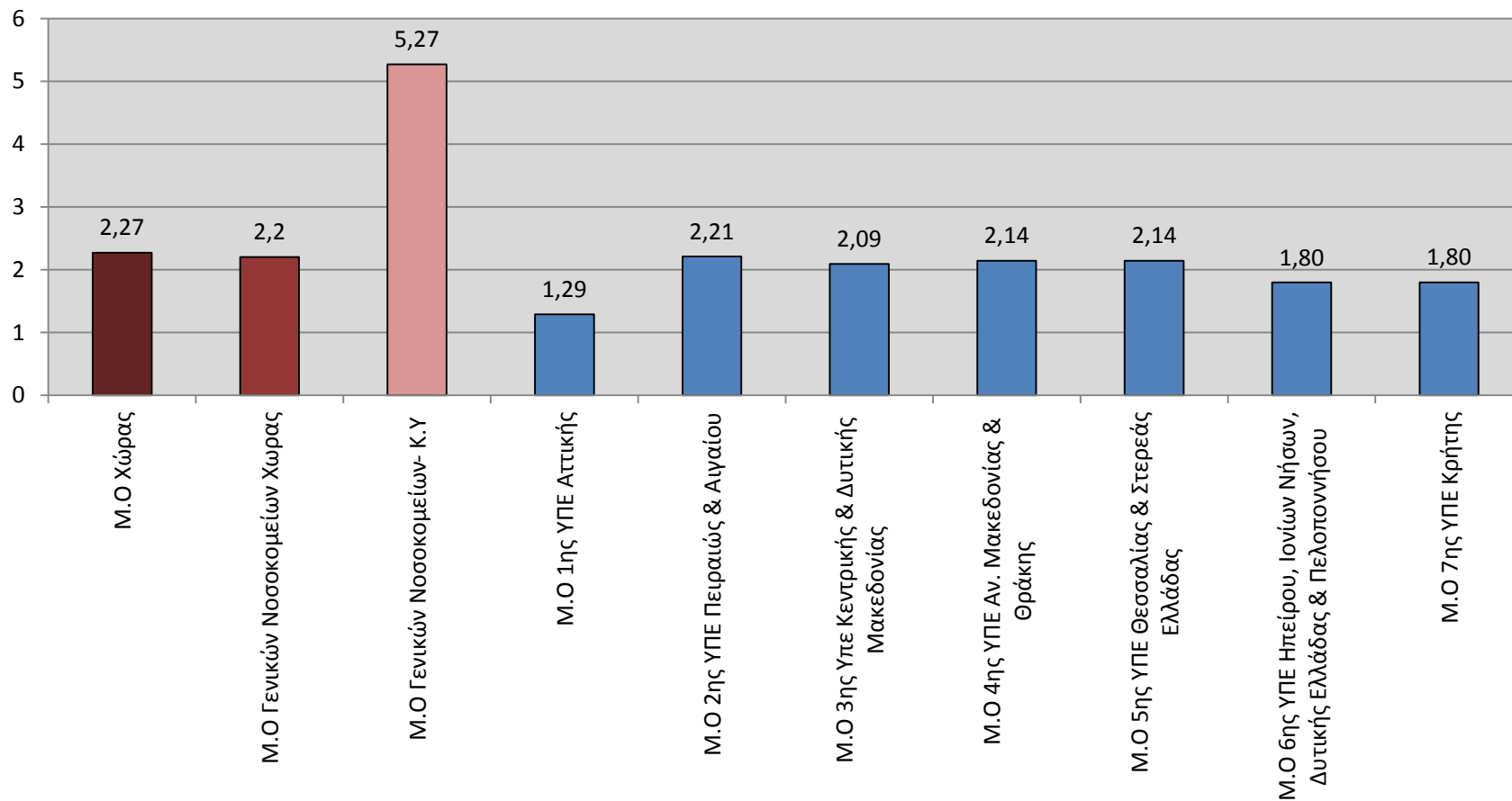
Δείκτες νοσηλευτικής δραστηριότητας ΥΠΕ

Ρυθμός Εισροής



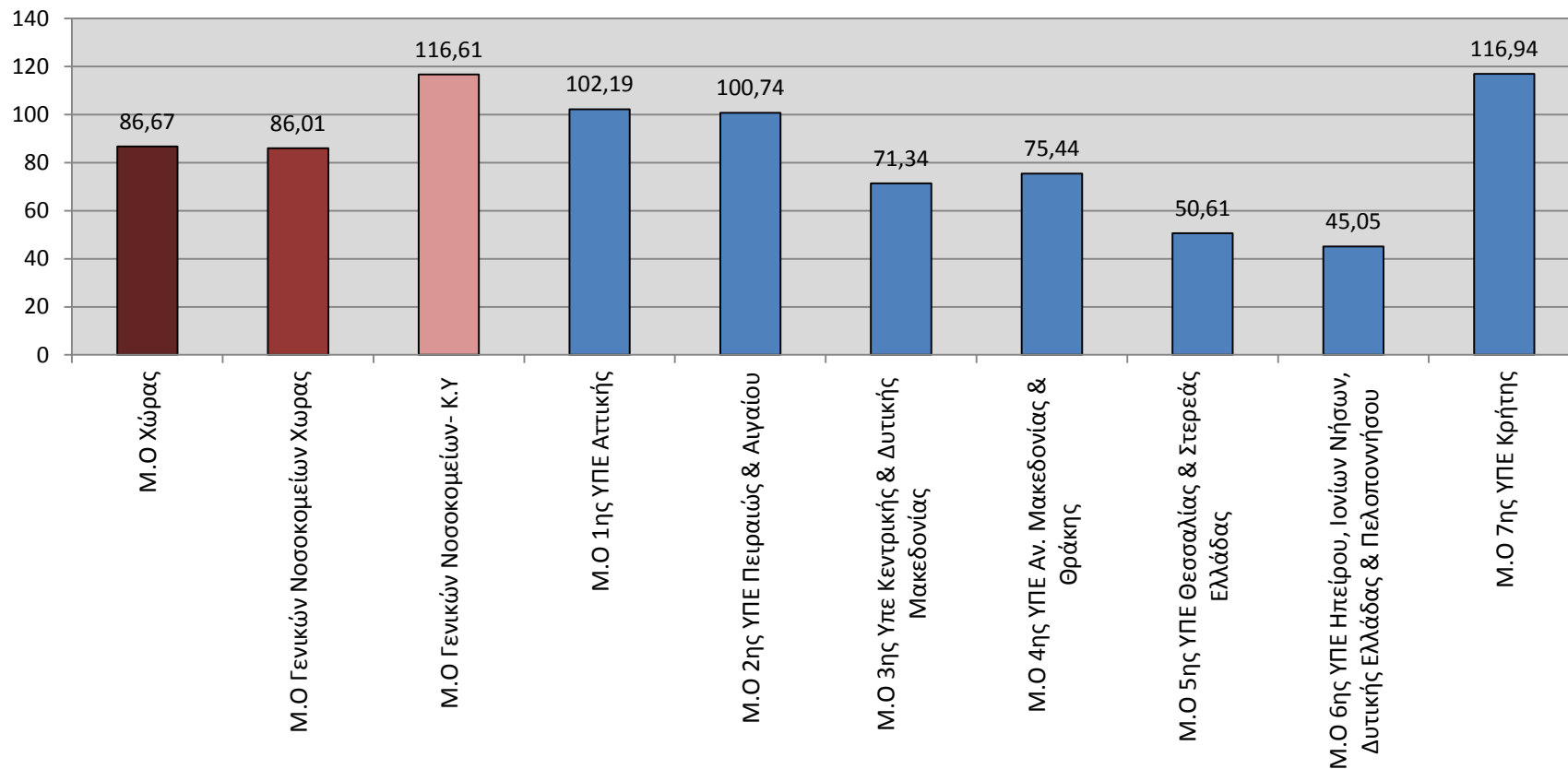
Δείκτες νοσηλευτικής δραστηριότητας ΥΠΕ

Διάστημα Εναλλαγής



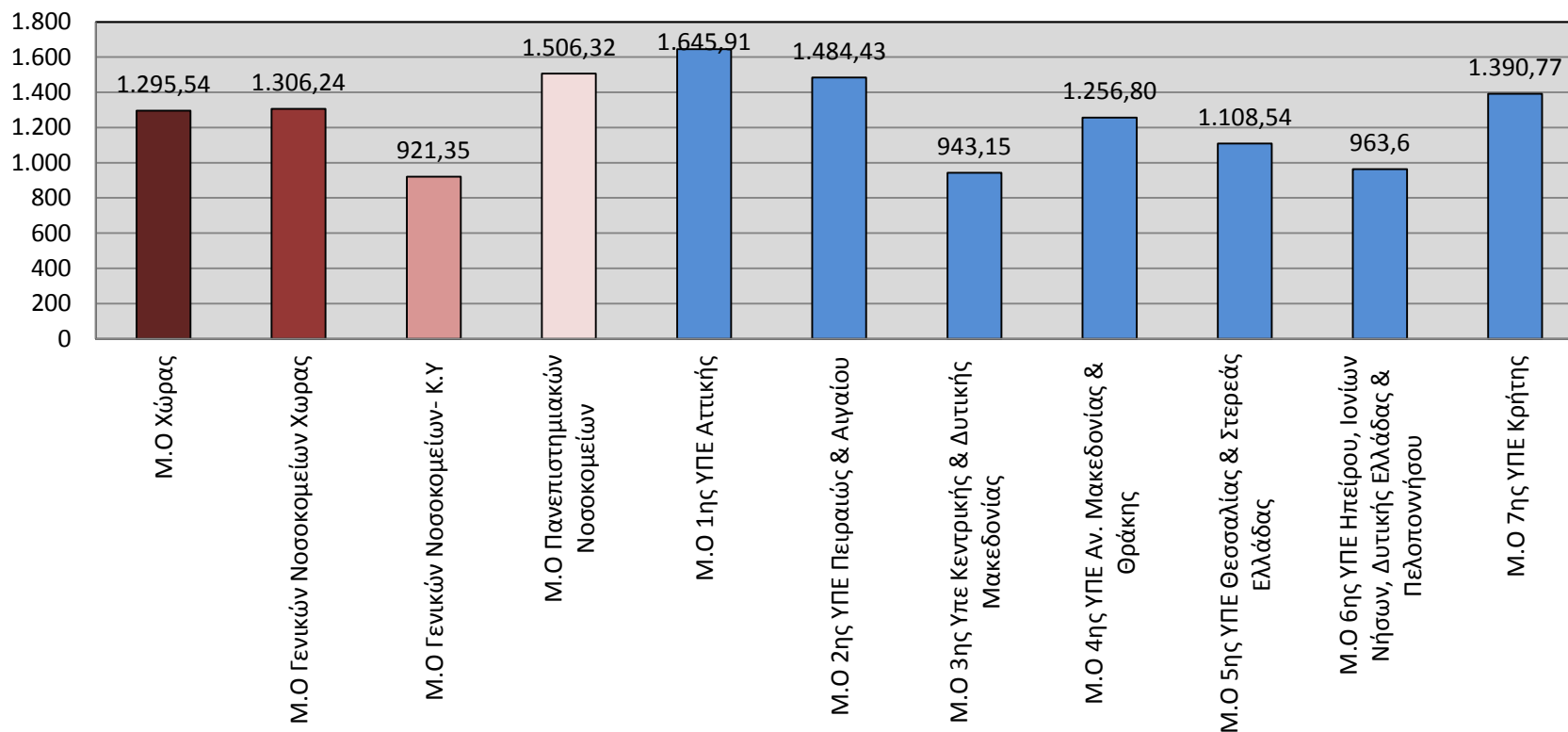
Δείκτες νοσηλευτικής δραστηριότητας ΥΠΕ

Εργαστηριακές Εξετάσεις/Νοσηλευθέντα



Δείκτες νοσηλευτικής δραστηριότητας ΥΠΕ

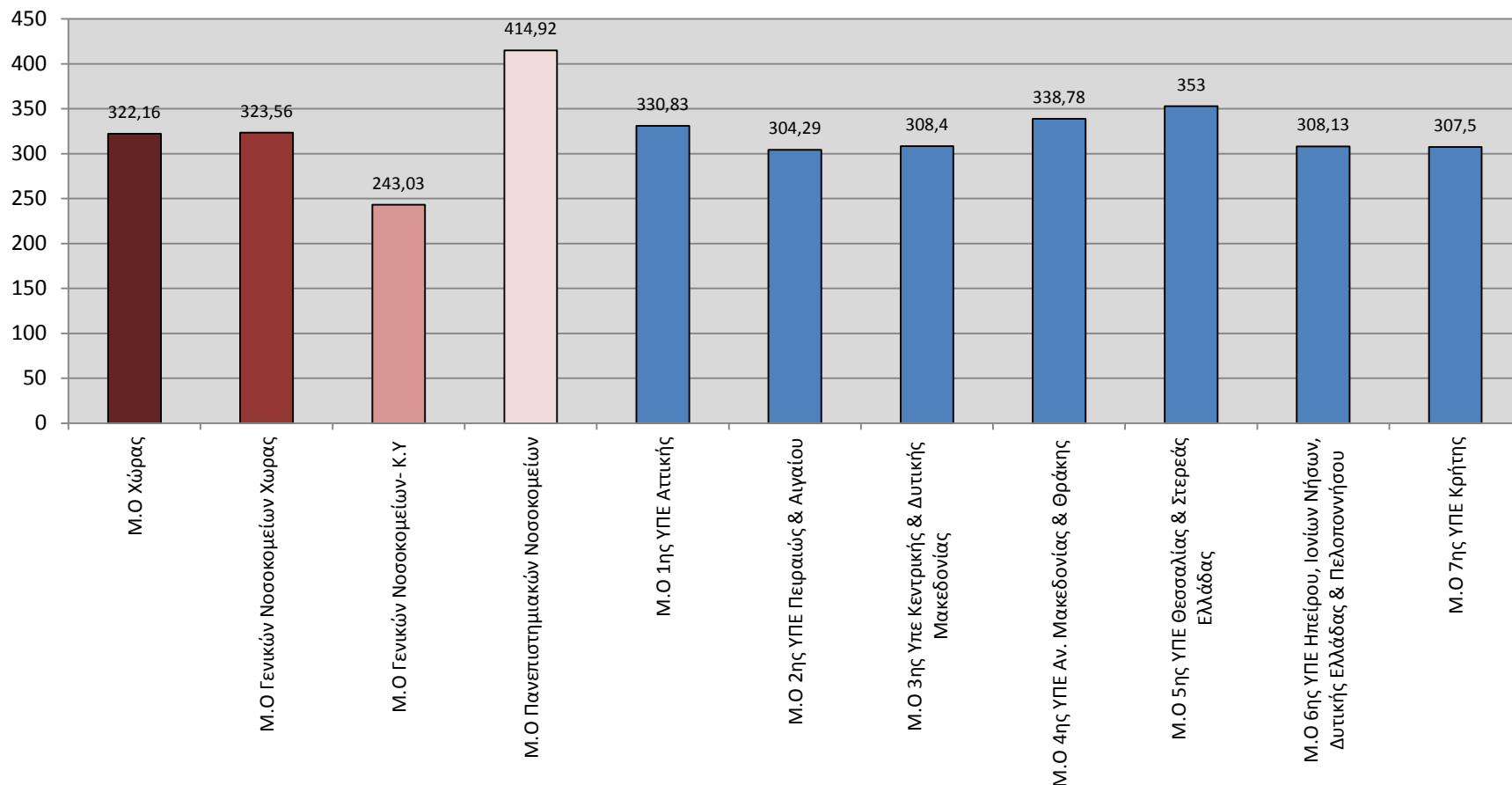
Κόστος/ Νοσηλευθέντα



**** Το κόστος αφορά κυρίως τις προμήθειες σε φάρμακα, αντιδραστήρια, υγειονομικό υλικό και μέρος των λειτουργικών εξόδων. ΔΕΝ περιλαμβάνει κόστος μισθοδοσίας.**

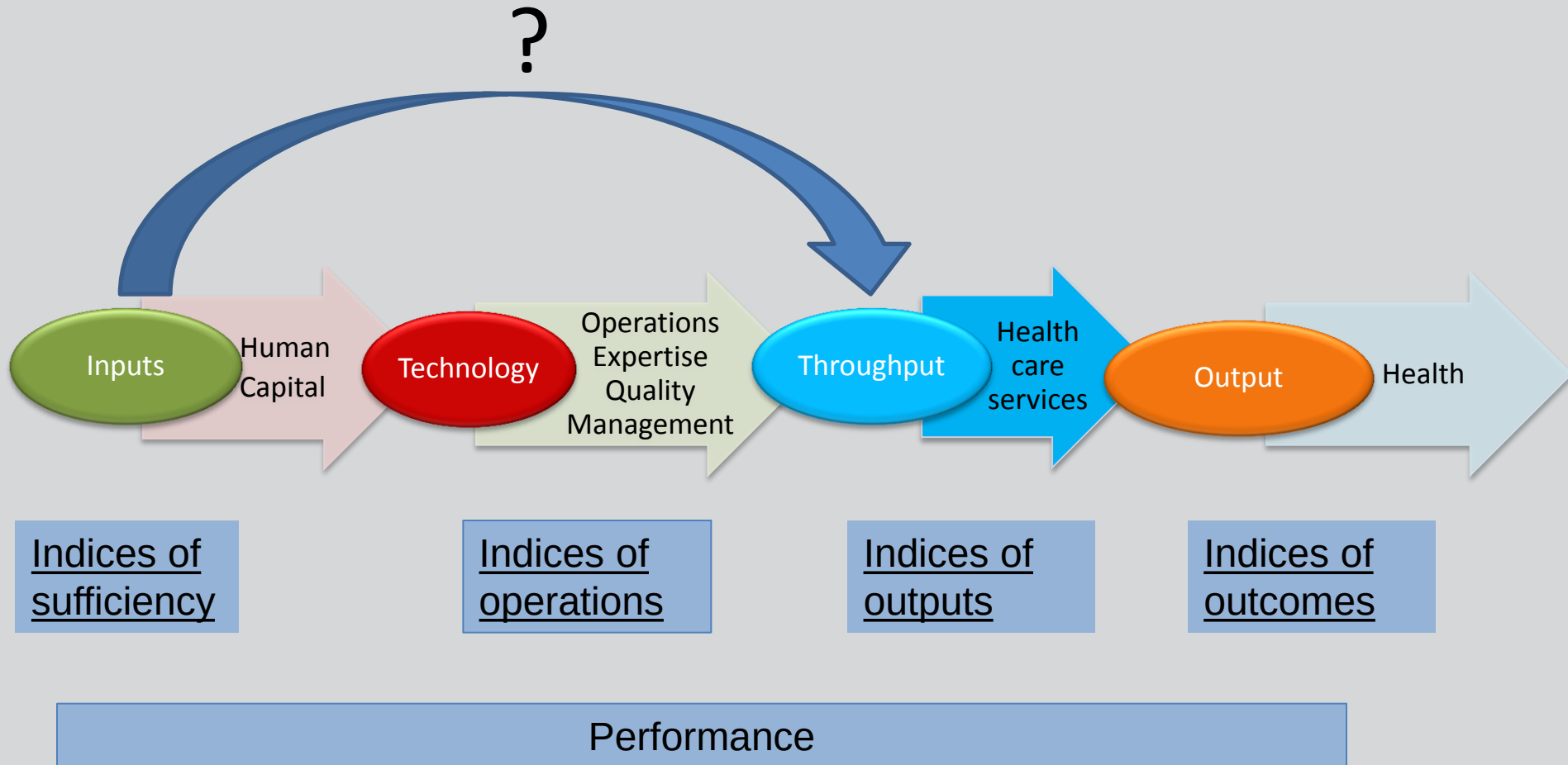
Δείκτες νοσηλευτικής δραστηριότητας ΥΠΕ

Κόστος/Ημερήσια Νοσηλεία



**** Το κόστος αφορά κυρίως τις προμήθειες σε φάρμακα, αντιδραστήρια, υγειονομικό υλικό και μέρος των λειτουργικών εξόδων. ΔΕΝ περιλαμβάνει κόστος μισθοδοσίας.**

The model



Αποτελέσματα DEA στα Νοσηλευτικά Ιδρύματα

ΥΡΕ	ΝΟΣΟΚΟΜΕΙΟ	Τριτοβάθμια			Δευτεροβάθμια			ΚΥ		
		TE	PTE	SE	TE	PTE	SE	TE	PTE	SE
1	Γ.Ν.Α. "Ο ΕΥΑΓΓΕΛΙΣΜΟΣ"	56	57	98						
1	Γ.Ν. ΠΑΙΔΩΝ "Η ΑΓΙΑ ΣΟΦΙΑ"	100	100	100						
1	Γ.Ν. ΠΑΙΔΩΝ "ΠΑΝ. & ΑΓΛ. ΚΥΡΙΑΚΟΥ"	100	100	100						
1	Γ.Ν.Α. "ΛΑΙΚΟ"	94	96	98						
1	Γ.Ν.Α. "ΙΠΠΟΚΡΑΤΕΙΟ"	67	77	86						
1	Γ.Ν.Α. "ΑΛΕΞΑΝΔΡΑ"	69	88	79						
1	Γ.Ν. ΜΑΙΕΥΤΗΡΙΟ "ΕΛΕΝΑΣ ΒΕΝΙΖΕΛΟΥ"									
1	Γ.Ν.Α. "ΠΟΛΥΚΛΙΝΙΚΗ"				43	51	84			
1	Γ.Ν. ΠΑΤΗΣΙΩΝ				44	54	81			
1	ΟΦΘΑΛΜΙΑΤΡΕΙΟ ΑΘΗΝΩΝ									
1	Γ.Ν. ΝΟΣΗΜΑΤΩΝ ΘΩΡΑΚΟΣ ΑΘΗΝΩΝ "ΣΩΤΗΡΙΑ"	76	83	92						
1	Γ.Ν. ΑΤΤΙΚΗΣ "ΚΑΤ"	47	62	76						
1	Γ.Ν.Α. "Γ. ΓΕΝΝΗΜΑΤΑΣ"	100	100	100						
1	Γ.Ν. ΜΕΛΙΣΣΙΩΝ "ΑΜΑΛΙΑ ΦΛΕΜΙΓΚ"				47	51	92			
1	Γ.Ν. ΑΤΤΙΚΗΣ "ΣΙΣΜΑΝΟΓΛΕΙΟ"	84	95	88						
1	"ΚΩΝΣΤΑΝΤΟΠΟΥΛΕΙΟ" Γ.Ν. ΝΕΑΣ ΙΩΝΙΑΣ				41	41	99			
1	ΠΑΙΔΟΨΥΧΙΑΤΡΙΚΟ ΝΟΣΟΚΟΜΕΙΟ ΑΤΤΙΚΗΣ									
1	Γ. ΟΓΚΟΛΟΓΙΚΟ ΝΟΣ. "ΟΙ ΑΓΙΟΙ ΑΝΑΡΓΥΡΟΙ"				58	79	73			
1	Γ.Ν. ΠΑΙΔΩΝ ΠΕΝΤΕΛΗΣ				100	100	100			

Αποτελέσματα DEA στα Νοσηλευτικά Ιδρύματα

ΥΡΕ	ΝΟΣΟΚΟΜΕΙΟ	Τριτοβάθμια			Δευτεροβάθμια			ΚΥ		
		TE	PTE	SE	TE	PTE	SE	TE	PTE	SE
1	Γ.Ν.Α. "ΚΟΡΓΙΑΛΕΝΕΙΟ - ΜΠΕΝΑΚΕΙΟ" Ε.Ε.Σ.	82	88	94						
1	ΓΕΝ. ΑΝΤΙΚΑΡΚΙΝΙΚΟ ΝΟΣ. "ΑΓ. ΣΑΒΒΑΣ"	86	100	86						
1	Γ.Ν.Α. "Η ΕΛΠΙΣ"				38	41	93			
1	ΝΟΣΟΚ. "ΑΝΔΡΕΑΣ ΣΥΓΓΡΟΣ"									
1	ΣΠΗΛΙΟΠΟΥΛΕΙΟ "Η ΑΓΙΑ ΕΛΕΝΗ"				91	100	91			
1	Γ.Ν. "ΑΣΚΛΗΠΕΙΟ" ΒΟΥΛΑΣ	92	100	92						
1	Γ.Ν.Α. "Η ΠΑΜΜΑΚΑΡΙΣΤΟΣ"				50	53	94			
2	ΨΥΧΙΑΤΡΙΚΟ ΝΟΣΟΚΟΜΕΙΟ ΑΤΤΙΚΗΣ									
2	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. "ΑΤΤΙΚΟΝ"	100	100	100						
2	Γ.Ν. ΝΙΚΑΙΑΣ ΠΕΙΡΑΙΑ "ΑΓΙΟΣ ΠΑΝΤΕΛΕΗΜΩΝ"	70	72	97						
2	Γ.Ν. ΠΕΙΡΑΙΑ "ΤΖΑΝΕΙΟ"	76	85	79						
2	ΓΕΝ. ΑΝΤΙΚΑΡΚΙΝΙΚΟ ΝΟΣ. "ΜΕΤΑΞΑ"	39	99	40						
2	Γ.Ν. ΕΛΕΥΣΙΝΑΣ "ΘΡΙΑΣΙΟ"				19	19	100			
2	Γ.Ν. ΔΥΤΙΚΗΣ ΑΤΤΙΚΗΣ				57	59	95			
2	Γ.Ν.-Κ.Υ. ΚΥΘΗΡΩΝ "ΤΡΙΦΥΛΛΕΙΟ"							92	100	92
2	Γ.Ν. ΜΥΤΙΛΗΝΗΣ "ΒΟΣΤΑΝΕΙΟ"				60	60	100			
2	Γ.Ν.-Κ.Υ. ΛΗΜΝΟΥ							88	95	93
2	Γ.Ν. ΣΑΜΟΥ "Ο ΑΓΙΟΣ ΠΑΝΤΕΛΕΗΜΩΝ"				25	38	66			
2	Γ.Ν.-Κ.Υ. ΙΚΑΡΙΑΣ							75	80	94
2	Γ.Ν. ΧΙΟΥ "ΣΚΥΛΙΤΣΕΙΟ"				57	62	91			
2	Γ.Ν. ΣΥΡΟΥ "ΒΑΡΔΑΚΕΙΟ & ΠΡΩΙΟ"				35	50	71			
2	Γ.Ν.-Κ.Υ. ΝΑΞΟΥ							100	100	100
2	Γ.Ν. ΡΟΔΟΥ "Α. ΠΑΠΑΝΔΡΕΟΥ"				48	53	91			

Αποτελέσματα DEA στα Νοσηλευτικά Ιδρύματα

ΥΡΕ	ΝΟΣΟΚΟΜΕΙΟ	Τριτοβάθμια			Δευτεροβάθμια			ΚΥ		
		ΤΕ	ΡΤΕ	ΣΕ	ΤΕ	ΡΤΕ	ΣΕ	ΤΕ	ΡΤΕ	ΣΕ
2	Γ.Ν.-Κ.Υ. ΚΑΛΥΜΝΟΥ "ΤΟ ΒΟΥΒΑΛΕΙΟ"							51	52	96
2	Γ.Ν.-Κ.Υ. ΚΩ							86	88	98
2	ΨΥΧΙΑΤΡΙΚΟ ΝΟΣΟΚΟΜΕΙΟ ΑΤΤΙΚΗΣ									
3	ΨΥΧΙΑΤΡΙΚΟ ΝΟΣ. ΘΕΣΣΑΛΟΝΙΚΗΣ									
3	Γ.Ν. ΘΕΣ/ΝΙΚΗΣ "Γ. ΠΑΠΑΝΙΚΟΛΑΟΥ"	68	70	96						
3	Γ.Ν. "ΠΑΠΑΓΕΩΡΓΙΟΥ"	100	100	100						
3	Γ.Ν. ΘΕΣ/ΝΙΚΗΣ "Γ. ΓΕΝΝΗΜΑΤΑΣ"				44	47	94			
3	Γ.Ν. ΘΕΣ/ΝΙΚΗΣ "ΑΓ. ΔΗΜΗΤΡΙΟΣ"				55	55	99			
3	ΝΟΣΟΚΟΜΕΙΟ ΕΙΔΙΚΩΝ ΠΑΘ. ΘΕΣΣΑΛΟΝΙΚΗΣ									
3	Γ.Ν. ΓΙΑΝΝΙΤΣΩΝ				90	100	90			
3	Γ.Ν. ΕΔΕΣΣΑΣ				58	60	97			
3	Γ.Ν. ΒΕΡΟΙΑΣ				86	90	95			
3	Γ.Ν. ΝΑΟΥΣΑΣ				63	69	92			
3	Γ.Ν. ΚΑΤΕΡΙΝΗΣ				100	100	100			
3	ΨΥΧΙΑΤΡΙΚΟ ΝΟΣ. ΠΕΤΡΑΣ ΟΛΥΜΠΟΥ									
3	Γ.Ν. ΠΤΟΛΕΜΑΪΔΑΣ "ΜΠΟΔΟΣΑΚΕΙΟ"				73	73	100			
3	Γ.Ν. ΚΟΖΑΝΗΣ "ΜΑΜΑΤΣΕΙΟ"				64	64	100			
3	Γ.Ν. ΦΛΩΡΙΝΑΣ "ΕΛΕΝΗ Θ. ΔΗΜΗΤΡΙΟΥ"				96	97	98			
3	Γ.Ν. ΚΑΣΤΟΡΙΑΣ				100	100	100			
3	Γ.Ν. ΓΡΕΒΕΝΩΝ				61	65	94			
4	Γ.Ν. ΘΕΣ/ΝΙΚΗΣ "ΙΠΠΟΚΡΑΤΕΙΟ"	73	79	93						
4	ΑΝΤΙΚΑΡΚΙΝΙΚΟ ΝΟΣ "ΘΕΑΓΕΝΕΙΟ"	94	100	94						
4	ΓΕΝ. ΝΟΣ. ΘΕΣ/ΝΙΚΗΣ "ΑΓΙΟΣ ΠΑΥΛΟΣ"				49	50	99			

Αποτελέσματα DEA στα Νοσηλευτικά Ιδρύματα

ΥΡΕ	ΝΟΣΟΚΟΜΕΙΟ	Τριτοβάθμια			Δευτεροβάθμια			ΚΥ		
		ΤΕ	PTE	SE	ΤΕ	PTE	SE	ΤΕ	PTE	SE
4	ΝΟΣ.ΑΦΡΟΔ. & ΔΕΡΜ. ΝΟΣΩΝ ΘΕΣΣΑΛΟΝ.									
4	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. "ΑΧΕΠΑ"	96	100	96						
4	Γ.Ν. ΣΕΡΡΩΝ				75	100	75			
4	Γ.Ν. ΚΙΛΚΙΣ				79	99	80			
4	Γ.Ν. - Κ.Υ. ΓΟΥΜΕΝΙΣΣΑΣ							93	100	93
4	Γ.Ν. ΧΑΛΚΙΔΙΚΗΣ				61	63	97			
4	Γ.Ν. ΚΑΒΑΛΑΣ				45	94	48			
4	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. ΑΛΕΞΑΝΔΡΟΥΠΟΛΗΣ	80	82	98						
4	Γ.Ν. ΔΙΔΥΜΟΤΕΙΧΟΥ				100	100	100			
4	Γ.Ν. ΞΑΝΘΗΣ				71	85	83			
4	Γ.Ν. ΚΟΜΟΤΗΝΗΣ "ΣΙΣΜΑΝΟΓΛΕΙΟ"				77	84	91			
4	Γ.Ν. ΔΡΑΜΑΣ				73	83	87			
5	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. ΛΑΡΙΣΑΣ	100	100	100						
5	Γ.Ν. ΛΑΡΙΣΑΣ "ΚΟΥΤΛΙΜΠΑΝΕΙΟ & ΤΡΙΑΝΤΑΦΥΛΛΕΙΟ"				62	85	73			
5	Γ.Ν. ΚΑΡΔΙΤΣΑΣ				67	80	83			
5	Γ.Ν. ΒΟΛΟΥ "ΑΧΙΛΛΟΠΟΥΛΕΙΟ"				61	70	88			
5	Γ.Ν. ΤΡΙΚΑΛΩΝ				64	65	99			
5	Γ.Ν. ΛΑΜΙΑΣ **				41	41	100			
5	Γ.Ν. ΛΙΒΑΔΕΙΑΣ				39	51	76			
5	Γ.Ν. ΘΗΒΩΝ **				100	100	100			
5	Γ.Ν. ΑΜΦΙΣΣΑΣ				41	54	75			
5	Γ.Ν. ΚΑΡΠΕΝΗΣΙΟΥ				77	97	79			

Αποτελέσματα DEA στα Νοσηλευτικά Ιδρύματα

ΥΡΕ	ΝΟΣΟΚΟΜΕΙΟ	Τριτοβάθμια			Δευτεροβάθμια			ΚΥ		
		ΤΕ	PTE	SE	ΤΕ	PTE	SE	ΤΕ	PTE	SE
5	Γ.Ν. ΧΑΛΚΙΔΑΣ				91	97	94			
5	Γ.Ν.-Κ.Υ. ΚΑΡΥΣΤΟΥ							100	100	100
5	Γ.Ν.-Κ.Υ. ΚΥΜΗΣ							95	98	97
6	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. ΠΑΤΡΩΝ *	70	73	97						
6	Γ.Ν. ΠΑΤΡΩΝ "Ο ΑΓΙΟΣ ΑΝΔΡΕΑΣ"				73	100	73			
6	ΝΟΣΗΜΑΤΩΝ ΘΩΡΑΚΟΣ				47	74	64			
6	Γ.Ν. ΠΑΙΔΩΝ ΠΑΤΡΩΝ "ΚΑΡΑΜΑΝΔΑΝΕΙΟ"				100	100	100			
6	Γ.Ν. ΑΙΓΙΟΥ				60	68	88			
6	Γ.Ν.-Κ.Υ. ΚΑΛΑΒΡΥΤΩΝ							65	98	66
6	Γ.Ν. ΠΥΡΓΟΥ "Α. ΠΑΠΑΝΔΡΕΟΥ"				68	68	100			
6	Γ.Ν. ΑΜΑΛΙΑΔΑΣ *				86	90	95			
6	Γ.Ν.-Κ.Υ. ΚΡΕΣΤΕΝΩΝ							100	100	100
6	ΨΥΧΙΑΤΡΙΚΟ ΝΟΣ ΤΡΙΠΟΛΗΣ									
6	Γ. Ν. ΤΡΙΠΟΛΗΣ "Η ΕΥΑΓΓΕΛΙΣΤΡΙΑ"				38	40	97			
6	Γ.Ν. ΚΑΛΑΜΑΤΑΣ				100	100	100			
6	Γ.Ν.-Κ.Υ. ΚΥΠΑΡΙΣΣΙΑΣ							77	80	96
6	Γ.Ν. ΣΠΑΡΤΗΣ "ΙΩΑΝ. & ΑΙΚΑΤ. ΓΡΗΓΟΡΙΟΥ"				58	59	99			
6	Γ.Ν.-Κ.Υ. ΜΟΛΑΩΝ *							100	100	100
6	Γ.Ν. ΝΑΥΠΛΙΟΥ				100	100	100			
6	Γ.Ν. ΑΡΓΟΥΣ				67	73	92			
6	Γ.Ν. ΚΟΡΙΝΘΟΥ				40	40	100			
6	Γ.Ν. ΜΕΣΟΛΛΟΓΙΟΥ "ΧΑΤΖΗΚΩΣΤΑ"				66	72	92			
6	Γ.Ν. ΑΓΡΙΝΙΟΥ				78	80	98			

Αποτελέσματα DEA στα Νοσηλευτικά Ιδρύματα

ΥΡΕ	ΝΟΣΟΚΟΜΕΙΟ	Τριτοβάθμια			Δευτεροβάθμια			ΚΥ		
		TE	PTE	SE	TE	PTE	SE	TE	PTE	SE
6	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. ΙΩΑΝΝΙΝΩΝ	100	100	100						
6	Γ.Ν. ΙΩΑΝΝΙΝΩΝ "ΧΑΤΖΗΚΩΣΤΑ"				46	51	90			
6	Γ.Ν. ΑΡΤΑΣ				52	52	100			
6	Γ.Ν. ΠΡΕΒΕΖΑΣ				74	78	95			
6	Γ.Ν.-Κ.Υ. ΦΙΛΙΑΤΩΝ							85	100	85
6	Γ.Ν. ΚΕΡΚΥΡΑΣ **				59	62	96			
6	Γ.Ν. ΛΗΞΟΥΡΙΟΥ "ΜΑΝΤΖΑΒΙΝΑΤΕΙΟ"				51	100	51			
6	Γ.Ν. ΚΕΦΑΛΛΗΝΙΑΣ				65	74	88			
6	Γ.Ν. ΖΑΚΥΝΘΟΥ "ΑΓΙΟΣ ΔΙΟΝΥΣΙΟΣ"				73	77	96			
6	Γ.Ν. ΛΕΥΚΑΔΑΣ				82	91	91			
7	ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ Γ.Ν. ΗΡΑΚΛΕΙΟΥ	84	84	100						
7	Γ.Ν. ΗΡΑΚΛΕΙΟΥ "ΒΕΝΙΖΕΛΕΙΟ - ΠΑΝΑΝΕΙΟ"	97	98	99						
7	Γ.Ν. ΧΑΝΙΩΝ "ΑΓ. ΓΕΩΡΓΙΟΣ"	100	100	100						
7	Γ.Ν. ΡΕΘΥΜΝΟΥ				55	55	99			
7	Γ.Ν. ΑΓΙΟΥ ΝΙΚΟΛΑΟΥ				52	56	93			
7	Γ.Ν.-Κ.Υ. ΙΕΡΑΠΕΤΡΑΣ							93	100	93
7	Γ.Ν.-Κ.Υ. ΣΗΤΕΙΑΣ							61	63	96
7	Γ.Ν.-Κ.Υ. ΝΕΑΠΟΛΗΣ "ΔΙΑΛΥΝΑΚΕΙΟ"							100	100	100

Αποτελέσματα DEA στις Υγειονομικές Περιφέρειες

	Τριτοβάθμια Νοσοκομεία			Νομαρχιακά Νοσοκομεία			Νοσοκομεία- Κέντρα Υγείας				
Υγειονομική Περιφέρεια	TE	PTE	SE	TE	PTE	SE	TE	PTE	SE	OCP	ALS
1 ^η Αττικής	81	88	91	57	63	90				77%	5.84
2 ^η Πειραιά & Αιγαίου	71	89	79	43	49	88	82	86	96	54%	4.44
3 ^η Κεντρικής & Δυτικής Μακεδονίας	84	85	98	74	77	97				62%	3.63
4 ^η Ανατολικής Μακεδονίας και Θράκης	86	90	95	70	84	84	93	100	93	63%	3.85
5 ^η Θεσσαλίας & Στερεάς Ελλάδας	100	100	100	64	74	87	98	99	99	60%	3.31
6 ^η Πελοποννήσου, Ιονίων Νήσων, Ηπείρου και Δυτικής Ελλάδας	85	87	99	67	75	91	85	96	89	46%	3.22
7 ^η Κρήτης	94	94	100	54	56	96	85	88	96	57%	4.69

Τριτοβάθμια Νοσοκομεία (και Πανεπιστημιακά)

	DOCS	NURSE	OTHER	BEDS	EXP	PAT	TEP	TEI	OCP	ALS
Ελάχιστο	238	276	241	312	12.029.708	11.690	0	38.155	47%	3
Μέγιστο	831	1.010	740	936	135.739.663	69.030	153.812	311.099	109%	10
Μέσος Όρος	448	612	448	573	62.547.752	35.797	71.755	103.483	79%	5
SD	130	190	123	167	29.767.926	13.785	44.063	60.017	14%	1

	TE	PTE	SE
Ελάχιστο	39	57	40
Μέγιστο	100	100	100
Μέσος Όρος	83	89	93
SD	17	13	12

Δευτεροβάθμια Νοσοκομεία

	DOCS	NURSE	OTHER	BEDS	EXP	PAT	TEP	TEI	OCP	ALS
Ελάχιστο	8	13	19	31	259.007	279	0	3.940	13%	1
Μέγιστο	317	532	395	392	29.057.535	31.820	119.352	120.951	111%	26
Μέσος Όρος	109	217	156	175	9.267.915	11.451	39.248	47.942	61%	4
SD	63	125	83	91	6.477.635	7.142	26.658	27.547	16%	3

	TE	PTE	SE
Ελάχιστο	19	19	48
Μέγιστο	100	100	100
Μέσος Όρος	64	71	91
SD	20	21	12

Γενικά Νοσοκομεία – Κέντρα Υγείας

	DOCS	NURSE	OTHER	BEDS	EXP	PAT	TEP	TEI	OCP	ALS
Ελάχιστο	8	15	26	44	18	277.116	572	0	0	0
Μέγιστο	110	100	102	202	92	4.894.455	5.315	19.257	42.412	53.479
Μέσος Όρος	32	51	53	103	53	2.023.018	2.222	7.317	10.480	25.661
SD	24	29	23	51	26	1.623.643	1.633	5.286	12.071	14.935

	TE	PTE	SE
Ελάχιστο	51	52	66
Μέγιστο	100	100	100
Μέσος Όρος	86	91	94
SD	15	14	8

Ανάλυση ΟΟΣΑ



ECO/WKP(2009)63
Unclassified

Unclassified

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

ECO/WKP(2009)63

21-Sep-2009

ECONOMICS DEPARTMENT

English - Or. English

OECD ASSESSMENT AND PROPOSALS

IMPROVING THE PERFORMANCE OF THE PUBLIC HEALTH CARE SYSTEM IN GREECE

ECONOMICS DEPARTMENT WORKING PAPER No. 722



By Charalampos Economou and Claude Giorno

Assessment of the HC system by OECD experts

- Centralized, fragmented, regressively funded
- Inefficient, poorly managed with low value for money
- Massive deficit and debt generation every year
- Poor access to services and poor quality
- Significant gray economy
- Strong supplier induced demand phenomena
- Absence of cost containment measures and HTA
- Absence of information technology infrastructure
- Significant annual increases in drugs and consumables expenditure
- Lack of control on prescription and evaluation of outcomes

Proposals for reforms

- **Information for management and transparency**
 - Health outcome data
 - Economic and activity data
 - Drug prescription and use data
- **Management and organization improvement**
 - Accounting and finance system
 - Accreditation system
 - Autonomy to providers
- **Other measures and proposals**
 - Human resources planning and management
 - Funding and primary care reorganization
 - IT introduction and accounting
 - Favor generic technologies by various means
 - Control use of technologies and drugs
 - Assessment of value for money (HTA)



ΕΘΝΙΚΗ
ΣΧΟΛΗ
ΔΗΜΟΣΙΑΣ
ΥΓΕΙΑΣ
ΥΓΕΙΟΝΟΜΙΚΗ ΣΧΟΛΗ
ΑΘΗΝΩΝ 1929-1994



Ευχαριστώ θερμά για την προσοχή σας!